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November 1, 2006

**OPPER
&
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THE ENVIRONMENTAL
LAW GROUP

Donn LiPera
Project Manager, Site Assessment & Mitigation Program
County of San Diego
P.O. Box 129261
San Diego, CA 92122-9261

Re: Closure Report to Administering Agency
Marina Gateway Hotel Project, National City

Dear Mr. LiPera:

Many years of planning and close collaboration with all levels of government; local, state and federal, have gone into the mitigation and rehabilitation of the land that sits at the north bank of Paradise Marsh. We have finally reached that part of the project where permitting and, later, construction is planned, thanks in large measure to the guidance that DEH and you have provided for the redevelopment project.

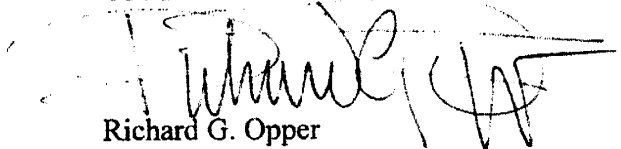
This is a precedent setting Closure Report for National City's Community Development Commission and the DEH, as it represents the successful coordination of multiple state agencies as well as the adoption of current DTSC and RWQCB policies for post-closure management of such sites, incorporating explicit Deed Covenants to ensure all are informed of site conditions and concerns, and proposing monitoring and maintenance plans that are designed for the context of redeveloped urban brownfields. This site will then be tracked in National City's new web-based system. We believe that this project has incorporated all relevant measures to safely plan for the redevelopment and re-use that is so vital to the City of National City, as it is for California cities throughout the state. Your agreement with these conclusions, and circulation of the documentation for the Certificate of Completion (conditioned upon the continued adherence to post closure requirements) that is requested, will move the project to its last and most important step.

Donn LiPera
November 1, 2006
Page 2

Please don't hesitate to call or write any member of the redevelopment team if you have any questions or requests regarding this project. As ever, time is a critical component of any redevelopment project, and now that we are moving into the permitting and construction phases time is more of the essence than ever. Please let us know if there is anything we can do to help expedite the process of your review.

Sincerely,

OPPER & VARCO LLP



Richard G. Oppen

RGO/jlk

cc: Ms. Patricia Beard, CDC

Mr. John Anderson and Chehreh Komeylyan, Regional Water Quality Control Board

Mr. Safouh Sayed, Department of Toxic Substances Control

Ms. Michelle Stress, County of San Diego Local Enforcement Agency Solid Waste

Mr. Dan Tappen, County of San Diego Occupational Health

Ms. Catherine T. Zeeman, Ph.D., United States Fish and Wildlife Service

Mr. Brian Collins, United States Fish and Wildlife Service

Mr. Dan Forney, United States Fish and Wildlife Service

Mr. Joseph Yager, Air Pollution Control District

Mr. Donald Condon, National City Fire Department

Mr. William Paznokas, California Department of Fish and Game

**Property Closure Report
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca
Properties**

**2501 and 2510 Cleveland Avenue
National City, California**

DEH Case Number: H23772-002

Prepared by:

SCS Engineers
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

November 9, 2006

Project Number 01203569.11

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SCS ENGINEERS

November 9, 2006

Project Number: 01203569.11

Mr. Donn LiPera
County of San Diego, Department of Environmental Health
Post Office Box 129261
San Diego, California 92112-9261

**Re: Property Closure Report
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California (Property)
DEH Case Number H23772-002**

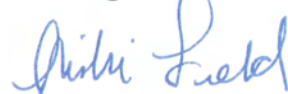
Dear Mr. LiPera:

SCS Engineers (SCS) is pleased to present this Property Closure Report for the above-referenced Property located within the Harbor District Redevelopment Area. SCS conducted the work on behalf of the Community Development Commission of National City (CDC) in general accordance with the provisions of the Polanco Act specific to the Harbor District Redevelopment Area.

All known and reasonably suspected releases of hazardous substances (including petroleum products) in the soil and groundwater at the Property have been assessed and mitigated as required by the Master Workplan (MWP) and the Property Mitigation Plan (PMP). Based upon the results of the assessment and mitigation activities and the known end uses of the Property, it is our professional opinion that the subsurface conditions at the Property do not pose a significant risk to human health or a threat to the known beneficial uses of water resources in the area. On behalf of the CDC, we would like to request conditional closure of the release case at the Property in general accordance with the MWP and PMP.

We appreciate the time and attention that you and others at the Department of Environmental Health have invested in this project. Please feel free to contact us at any time if you have questions or require clarification.

Respectfully,
SCS Engineers



Nicki M. Field
Project Professional



Daniel E. Johnson
Vice President

NMF

F:\Projects\203\551 to 600\569 (CDC)\01203569.11 (Cleveland Cuyamaca)\01203569.11.pcr.wpd

cc:

Ms. Patricia Beard, CDC

Mr. Richard Oppen, Oppen & Varco LLP

Mr. John Anderson and Chehreh Komeilyan, Regional Water Quality Control Board



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Mr. Dan Tappen, County of San Diego Occupational Health
Mr. Scott Sobiech, United States Fish and Wildlife Service
Mr. Brian Collins, United States Fish and Wildlife Service
Mr. Dan Forney, United States Fish and Wildlife Service
Mr. Joseph Yager, Air Pollution Control District
Mr. Donald Condon, National City Fire Department
Mr. William Paznokas, California Department of Fish and Game

**PROPERTY CLOSURE REPORT
MARINA GATEWAY HOTEL PROJECT,
FORMERLY CLEVELAND AND CUYAMACA PROPERTIES
2501 and 2510 Cleveland Avenue
Assessor Parcel Numbers 559-117-14 and -15, and 559-160-03, -09, -11, and -21
Portion of the Harbor District Redevelopment Area**

November 9, 2006

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EXECUTIVE SUMMARY

In 1997, the Community Development Commission of National City (CDC) began the process of permitting and approvals for the development of a hotel project at the former Cleveland Property (APNs 559-117-14 and -15, and 559-160-03, 09, and -21) and the former Cuyamaca Property (APN 559-160-11) (Property). The Harbor District Specific Area Plan (SAP) was developed by the CDC, and certified by the California Coastal Commission (CCC) in 1998. The SAP specified redevelopment land use constraints for the Property, and approved the mitigation of burn ash-bearing soil by reconsolidating, regrading, and capping the portion of the Property impacted by burn ash. In 2000, the CDC applied to the California Environmental Protection Agency (Cal-EPA) Site Designation Committee, under Health and Safety Code (HSC) § 25260 et seq., for designation of a lead agency for the project. The application was approved by Cal-EPA Resolution 00-06, and the County of San Diego Department of Environmental Health (DEH) was appointed the “administering” or lead agency for the Property and the other portions of the Harbor District Redevelopment Area (Site).

In 2001, the CDC submitted a Master Workplan (MWP) for the Site that described an approach to the redevelopment of the Site, and proposed a methodology that incorporated the safe reuse of constituent of concern (CoC)-bearing soil at the Property by consolidating the CoC-bearing soils into limited designated areas where both engineering and institutional controls (capping and the recording of a Deed Covenant) would be used to protect the public from exposures. It was proposed in the MWP that individual property mitigation plans would be prepared for each redevelopment project within the Site. The MWP was approved by the DEH on December 24, 2001. Subsequent to DEH approval of the MWP, a Property Mitigation Plan (PMP) was prepared for the Property, and was approved by the DEH on April 16, 2003. Both the MWP and PMP were subject to review and input by multiple agency stakeholders, including the United States Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), Air Pollution Control District (APCD), and National City Fire Department (NCFD).

The MWP and PMP that governed the work described in this Property Closure Report (PCR) were designed to be in accordance with the provisions of the Polanco Act specific to the Harbor District Redevelopment Area.

Based on a review of current and historical records, and soil, soil gas, and groundwater analytical data from subsurface investigations conducted by previous consultants as well as by SCS Engineers (SCS), it appears that historical releases of petroleum hydrocarbons, metals, volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) have resulted in impacts to soil (petroleum hydrocarbons, metals, VOCs, PAHs, and PCBs), soil gas (VOCs), and/or groundwater (petroleum hydrocarbons and VOCs) at the Properties. Much of the impacted soil was managed on-site and reconsolidated on-site into area of contamination (AOC) 1 that was created by the State of California working through the California Integrated Waste Management Board (CIWMB), as approved by the DEH.

With the exception of one soil sample with a reported trichloroethene (TCE) concentration of 10 micrograms per kilogram (µg/kg) and one soil sample with a total petroleum hydrocarbons as oil

(TPHo) concentration of 84 milligrams per kilogram (mg/kg), only metals were reported in soil samples collected from portions of the Property outside of AOC 1. Six soil samples containing elevated metal (lead) concentrations were reported in the vicinity of the proposed hotel building, and this soil will be managed on-site during construction activities.

Mitigation of the Property was achieved by limited excavation and off-Site disposal of constituent of concern- (CoC-) bearing soils in the vicinity of the battery pit and 1,000-gallon bunker fuel underground storage tank (UST), and by the reconsolidation and capping of AOC 1. Review of available Property investigation data and laboratory reports included in the Appendix indicates that additional delineation or mitigation is not required for residual impacts remaining at the Property.

Based on the results of the assessment and mitigation activities described in this PCR, it is our professional opinion that the known or reasonably suspected releases of hazardous substances at the Property have been assessed and mitigated as necessary in general accordance with the MWP and PMP, and that the subsurface conditions at the Property do not pose a significant risk to human health or a threat to the known beneficial uses of water resources in the area. We have been advised that a substantial amount of the permitting and planning for the construction of the future Marina Gateway Hotel Project (Project) has been completed or is nearing completion, and that the construction of the Project will commence in the near future. We therefore recommend that the DEH issue a conditional Certificate of Completion pursuant to HSC § 25264. As specifically provided by statute, such Certificates can be issued with conditions, restrictions, or limitations (HSC § 25264[c][2]). We propose that the Certificate of Completion for the Property include the following conditions:

- **Preparation of Post-Closure Addendum Report (PCAR)**

Elevated metal (lead) concentrations were reported in six soil samples collected from AOC 3 and from portions of the proposed location of the hotel building. The soil samples within AOC 3 and the vicinity of the future hotel building that were reported to have elevated lead concentrations were located at depths of 0.5 to 2 foot below grade and were observed to consist of silty sand with gravel fill that overlays approximately 3 to 4 inches of concrete. It is likely that this fill soil and the underlying concrete will require removal prior to construction of the hotel. It is also likely that the fill soil can be reused on-site since the Property is an import site, and the geotechnical properties (silty sand with gravel) of the soil should make it suitable for recompaction.

Subsequent to the demolition of the subsurface slab and relocation of the lead-bearing fill soil (or off-site disposal), a PCAR will be prepared and submitted to the DEH. The PCAR will report the end disposition of this soil, and provide any appropriate documentation (such as manifests if soil is disposed of off-site).

- **Air monitoring**

Since residual concentrations of CoCs are present, air monitoring (for dust and VOCs) will be conducted during grading activities. The PCAR will include the results of the air monitoring during grading activities, and will document any instances during grading activities where action levels were exceeded and corrective actions (BMPs) were implemented.

- **Groundwater monitoring**

Continued groundwater monitoring as currently required by the DEH (three additional quarters of monitoring currently required), and the preparation and submittal of three quarterly groundwater monitoring reports.

- **Post-Closure Monitoring and Maintenance Plan (PCMMP)**

Adoption and implementation of the PCMMP. The PCMMP is a stand-alone document (included in the Appendix) which provides for the inspection and maintenance of the reconsolidated, capped, and revegetated former burn dump area in AOC 1 (historically referred to as the North Fill Bank); includes an emergency response section which discusses various scenarios under which various emergency response actions would be required; and summarizes the post-closure conditions that apply, what party is responsible for each condition, and the contact information for each party.

- **Deed Covenant**

Recording a Deed Covenant, pursuant to Civil Code § 1471, that provides environmental restrictions on future Property use. The Deed Covenant will be recorded at the County Recorder's Office to provide explicit information about the location of AOC 1 on the Property and to require additional environmental oversight in the event of any changes to Property use or redevelopment. These land use restrictions will also be reported on National City's Brownfields Redevelopment Environmental Information System website at <http://www.nationalcitybreis.org/>.

1.0 INTRODUCTION

In 1997, the Community Development Commission of National City (CDC) began the process of permitting and approvals for the development of a hotel project at the former Cleveland Property (APNs 559-117-14 and -15, and 559-160-03, 09, and -21) and the former Cuyamaca Property (APN 559-160-11) (Property) (Figure 1). In 2000, the CDC applied to the California Environmental Protection Agency (Cal-EPA) Site Designation Committee, under Health and Safety Code (HSC) § 25260 et seq., for designation of a lead agency for the project. The application was approved by Cal-EPA Resolution 00-06, and the County of San Diego Department of Environmental Health (DEH) was appointed the “administering” or lead agency for the Property and the other portions of the Harbor District Redevelopment Area (Site). The CDC has conducted the work described in this Property Closure Report (PCR) in accordance with the provisions of the Polanco Act specific to the Harbor District Redevelopment Area..

This PCR covers the Cleveland Property (assessor parcel numbers [APNs] 559-117-14 and -15, and 559-160-03, 09, and -21) and the Cuyamaca Property (APN 559-160-11) (Property) (Figure 1).

1.1 Relationship to Specific Area Plan

The Harbor District Specific Area Plan (SAP)ⁱ was developed by the CDC, and certified by the California Coastal Commission (CCC) in 1998. The SAP was prepared to establish site-specific conservation and redevelopment standards in the area surrounding Paradise Marsh which is comprised of industrial, tourist-commercial, and open space land uses. The SAP has been the primary planning document for redevelopment of the Property. The SAP specified redevelopment land use constraints for the Property, and approved the mitigation of burn ash-bearing soil by reconsolidating, regrading, and capping the portion of the Property impacted by burn ash.

During development of the SAP, the CDC solicited input from multiple departments within the City of National City (including Planning and Engineering), the San Diego Unified Port District, the County of San Diego, the CCC, the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), the Metropolitan Transit Development Board, the San Diego Area Council of Governments, property owners, non-governmental organizations, and the general public. CDC conducted various public outreach activities, including:

- City Council workshop on December 8, 1997,
- Combined City Council and Planning Commission workshop on March 18, 1998,

ⁱ *Harbor District Specific Area Plan*, City of National City Local Coastal Program, adopted by City of National City Planning Commission on July 20, 1998, adopted by City of National City City Council on July 28, 1998, certified by California Coastal Commission on November 5, 1998.

- Public notice and circulation of a draft SAP for public review and comment for a period of six weeks,
- Planning Commission hearing and recommendation to City Council on July 20, 1998, and
- City Council and CDC public hearing on July 28, 1998.

The mitigation activities conducted by the California Integrated Waste Management Board (CIWMB) were conducted in accordance with the SAP, and are described in a reportⁱⁱ prepared by the CIWMB that was previously submitted to the DEH. The specific redevelopment conditions for the Property have been discussed in detail in the Master Workplan (MWP)ⁱⁱⁱ and Property Mitigation Plan (PMP)^{iv}. The conditions detailed in the SAP are enforced by the City of National City Planning and Engineering Departments, and by the USFWS.

1.2 Relationship to Master Workplan and Property Mitigation Plan

In 2001, the CDC submitted the MWP for the Site that described an approach to the redevelopment of the Site, and proposed a methodology that incorporated the safe reuse of constituent of concern (CoC)-bearing soil at the Property by consolidating the CoC-bearing soils into limited designated areas where both engineering and institutional controls (capping and the recording of a Deed Covenant) would be used to protect the public from exposures. The MWP for the Site, approved by the DEH on December 24, 2001, described general guidelines, standards, and procedures; however, the MWP did not include Property-specific mitigation plans or recommendations for additional assessment. Remediation goals for the known future land uses were established in the MWP for the Site. It was proposed in the MWP that individual property mitigation plans would be prepared for each redevelopment project within the Site.

Subsequent to DEH approval of the MWP, the PMP was prepared for the Property, and was approved by the DEH on April 16, 2003, with several conditions. The PMP was prepared to describe the Property-specific soil remediation required to redevelop the Property consistent with the SAP, to describe the four potential "Areas of Contamination" (AOCs) identified at the Property, and to make recommendations for additional assessment. Please note, of the four areas identified as potential AOCs in the

ii *Project Completion Report - North Fill Bank Remediation* (Project Completion Report), prepared by the CIWMB, and dated September 5, 2006. Please note, due to timing and cost constraints, this document was not reviewed by SCS; however, the as-builts were provided to SCS and reviewed during preparation of this PCR.

iii *Master Workplan, Community Development Commission Harbor District Redevelopment Project Environmental Remediation*, prepared by SCS, and dated September 4, 2001.

iv *Property Mitigation Plan, for the Cleveland Associates, Inc. Property APNs 559-117-14 and -15; and, APNs 559-160-03, -09, and -21 and the Former Cuyamaca Meats, Inc. Property, APN 559-160-11*, prepared by EBS, and dated March 25, 2003.

PMP, after additional assessment, only the area referred to as AOC 1 was made into an AOC. The three other areas are no longer considered potential AOCs and will be referred to as former AOCs (FAOCs) for the purposes of this PCR. A copy of the PMP approval letter is included in the Appendix.

Both the MWP and PMP were subject to review and input by multiple agency stakeholders, including the USFWS, CDFG, Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), Air Pollution Control District (APCD), and National City Fire Department (NCFD). Copies of these documents were submitted to all of these agencies with a request to provide any comments or concerns to the DEH.

Several features of potential concern (FOPCs) were identified in the PMP, and additional assessment activities were conducted in June and July 2003, August and September 2004, and June 2006.

The additional assessment activities conducted in June and July 2003 were discussed in a report titled *Letter Report of Additional Site Assessment Conducted Pursuant to the Requirements of the County of San Diego Department of Environmental Health at 2501 and 2510 Cleveland Avenue within the Harbor District Redevelopment Area, National City, California* (Additional Assessment Report)^v. The additional assessment activities conducted in August and September 2004, and June 2006 are described in Sections 2.3.2 and 2.4 of this PCR.

This PCR was prepared 1) to describe additional assessment activities that have been conducted, 2) to summarize the recognized environmental conditions (RECs) that have been identified and the mitigations that have been conducted to remedy the identified RECs, and 3) to justify issuance of a Certificate of Completion with appropriate post-closure conditions and on-going monitoring.

1.3 Applicable, or Relevant and Appropriate Requirements

The applicable, or relevant and appropriate requirements (ARARs) for the Property were discussed in detail in Section 1.4 of the PMP and will not be reiterated here.

1.4 Overall Mitigation Goals

In general, a health risk-based approach has been employed to assess soil and groundwater mitigation requirements. There are two exceptions to this approach that are pertinent to Property mitigation:

^v *Letter Report of Additional Site Assessment Conducted Pursuant to the Requirements of the County of San Diego Department of Environmental Health at 2501 and 2510 Cleveland Avenue within the Harbor District Redevelopment Area, National City, California*, prepared by SCS, and dated September 12, 2003.

- Arsenic is present in California soils in concentrations that exceed risk criteria under naturally occurring conditions. The California Human Health Screening Level (CHHSL)^{vi} for arsenic is 0.24 milligrams per kilogram (mg/kg) and the California-modified Preliminary Remediation Goal (PRG)^{vii} is 0.25 mg/kg; however, arsenic is known to naturally occur in soil, particularly western soils, in concentrations well above the CHHSL and PRG. Based on a report^{viii} prepared by the United States Geological Survey (USGS), the background concentrations of arsenic in the western United States range from 2.8 to 10.9 mg/kg. Based on a report^{ix} prepared specifically for California soils, the background concentrations of arsenic in California soil range from 0.6 to 11.0 mg/kg. Based on our experience with the Department of Toxic Substances Control (DTSC), the upper range of background arsenic concentrations is typically accepted for risk assessment purposes. Arsenic concentrations in soil samples recently collected on the Property outside of AOC 1 were reported to range from 0.726 to 4.02 mg/kg, well within the low end of the background range; therefore, even though the arsenic concentrations exceed the risk-based criteria, no mitigation of soils is proposed based on reported arsenic concentrations.
- If a waste is created and contaminant concentrations are such that the waste is classified as a hazardous under California or federal law, then the waste will require off-site disposal or treatment, or reuse within an AOC.

The mitigation goals established in the MWP and PMP apply to interim management of soils as well as to end/final use (hotel and restaurant with parking areas). Because worker exposure is of shorter duration than the assumed 25-year exposure periods typically used for occupational use (e.g., default exposure time periods presented in the 2006 Site Assessment and Mitigation [SAM] Manual), we believe the mitigation goals are sufficiently conservative to be protective of construction worker health if the soils are not disturbed. However, if soils are to be disturbed through grading or excavation activities, or if soils are to be transported and disposed of off-site, additional conditions may apply as noted below.

Best-management practices (BMPs) will be implemented during grading activities. For example, dust control measures will be implemented to minimize the potential for fugitive dusts, and air monitoring will be conducted during grading activities to assess the

vi Cal-EPA, *Use of California Human Health Screening Levels (CHSSLs) in Evaluation of Contaminated Properties*, dated January 2005.

vii United States Environmental Protection Agency (EPA), *Region 9 PRGs Table*, October 2004.

viii *Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States*, by J. G. Boerngen and H. T. Shacklette, USGS Professional Paper, 1984.

ix *Background Concentrations of Trace and Major Elements in California Soils*, by G. R. Bradford et al, Kearny Foundation of Soil Science Division of Agriculture and Natural Resources University of California, March 1996.

efficacy of the dust control measures and to minimize potential worker and community exposures, if any.

It is our understanding that the DEH interprets the applicable portions of the California Water Code and Titles 23 and 27 of the California Code of Regulations (CCR) to mean that any soil with detectable concentrations of hazardous substances or metals above interpreted background levels would be a “waste”^x upon excavation.^{xi} Any such waste must be discharged to a waste management unit for treatment, storage, or disposal, or reused in accordance with appropriate local, state, and federal regulations.

1.5 Reporting and Closure/Post-Closure Certification

This PCR requests the conditioned closure of all open release cases for the Properties so that the redevelopment can proceed. This closure will be contingent on compliance with several post-closure conditions. These conditions include:

- Preparation and submittal of a Post-Closure Addendum Report (PCAR). This is required since there is one known area of soil containing elevated concentrations of CoCs that will be excavated, and either reused on-site or transported and disposed of off-site. The PCAR will report the end disposition of this soil, and provide any appropriate documentation (such as manifests if soil is disposed of off-site). The PCAR will also describe the results of the air monitoring during grading and excavation activities, and any instances during grading and excavation activities where action levels were exceeded and corrective actions were implemented.
- Continued groundwater monitoring as currently required by the DEH, and the preparation and submittal of quarterly groundwater monitoring reports.
- Adoption and implementation of the Post-Closure Monitoring and Maintenance Plan (PCMMP) which is included in the Appendix for DEH review and approval. The PCMMP is a stand-alone document which provides for the inspection and maintenance of the reconsolidated, capped, and revegetated former burn dump area in AOC 1 (historically referred to as the North Fill Bank); includes an

^x The California Water Code, Division 7, Chapter 2 Section 13050 (d) defines a waste to include “any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation ... or from any producing, manufacturing, or processing operation of whatever nature, including such waste placed within containers of whatever nature prior to, and for the purposes of, disposal.”

^{xi} Titles 23 and 27, of the CCR, state that “Actions taken by or at the direction of public agencies to clean up or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment; provided wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to” appropriate waste classification system promulgated in each of the Titles.

emergency response section which discusses various scenarios under which various emergency response actions would be required; and summarizes the post-closure conditions that apply, what party is responsible for each condition, and the contact information for each party.

- Recording a Deed Covenant, pursuant to Civil Code § 1471, that provides environmental restrictions on future Property use. The Deed Covenant will be recorded at the County Recorder's Office to provide explicit information about the location of AOC 1 on the Property and to require additional environmental oversight in the event of any changes to Property use or redevelopment. These land use restrictions can also be reported on National City's Brownfields Redevelopment Environmental Information System website at <http://www.nationalcitybreis.org/>. A copy of the deed covenant is included in the Appendix.

Upon completion of the grading activities, additional groundwater assessment, and the submittal of all necessary closure reports, the DEH will be requested to issue a Certificate of Completion pursuant to the Cal-EPA Property designation process.

2.0 PROPERTY BACKGROUND

2.1 Property Identification

2.1.1 Cleveland Property

Assessor Parcel Number	APNs 559-117-14 and -15; and 559-160-03, -09, and -21
Current Use/Status	Parking areas, habitat buffer, pedestrian pathway, and vacant areas
End Use/Status	Hotel, restaurant, commercial building, parking areas, habitat buffer, and pedestrian pathway
Property Owner name and address (at time of mitigation activities)	Community Development Commission 1243 National City Boulevard National City, California 91950
Responsible Party	Community Development Commission
Project Contact name and phone number	Redevelopment Project Manager 619-336-4255

2.1.2 Cuyamaca Property

Assessor Parcel Number	APN 559-160-11
Current Use/Status	Parking areas, habitat buffer, pedestrian pathway, and vacant areas
End Use/Status	Hotel, restaurant, commercial building, parking areas, habitat buffer, and pedestrian pathway
Property Owner name and address (at time of mitigation activities)	Community Development Commission 1243 National City Boulevard National City, California 91950
Responsible Party	Community Development Commission
Project Contact name and phone number	Redevelopment Project Manager 619-336-4255

2.2 Property Setting

2.2.1 Site Geology

Based on a review of a geologic map,^{xii} the Property is underlain by alluvium and slopewash, and the Bay Point Formation. The alluvium is reported to consist of poorly consolidated stream deposits of silt, sand, and cobble-sized particles derived from bedrock sources. The alluvial deposits are reported to intertongue with Holocene slopewash. The slopewash deposits are reported to consist of poorly consolidated surficial materials from nearby sources of soil and decomposed bedrock. Slopewash is found mainly along flanks of lower valley slopes and deposited there through the interaction of gravity and water. The Bay Point Formation is reported to consist of marine, lagoonal, and nonmarine, poorly consolidated, fine- to medium-grained, pale brown fossiliferous sandstone. The unnamed nearshore marine deposits are reported to consist of light brown, fine-grained, well and poorly sorted sandstone. The following is a description of the geologic materials reported to have been encountered during this Assessment and in previous subsurface investigations at the Property.

- *Undocumented Fill with Burn Ash*

Undocumented fill, including burn ash and various debris, has been reported and observed at the AOC 1 portion of the Property at depths up to 27 feet below grade. This fill was observed to consist of brown to black and reddish to dark reddish brown, very loose to medium dense, damp to saturated clayey sand to silty sand with abundant debris. The fill is reported to contain burn ash deposits, which are described as dark gray to black, loose, silty sand and silt and clay with organic matter and fragments of melted glass. Abundant debris has been observed at the Site, including brick, concrete, asphalt, wire, glass, rubber, wood, sheet metal, fabrics, and pieces of used automotive batteries. The areas of undocumented fill mixed with burn ash were reconsolidated and capped (with either asphalt or concrete pavement, or clean fill and native species) by the CIWMB.

- *Other Fill*

Besides the undocumented fill mixed with burn ash that was reported and observed in AOC 1, other fill materials have been observed at other portions of the Property. These other fill materials have been observed at the Property at depths up to 1 to 8 feet below grade. The composition of these fill materials was observed to vary from apparent disturbed native materials (silt and sandy silt) to silty sand with gravel and sand.

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Geology of the National City, Imperial Beach, and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California, by Michael P. Kennedy and Siang S. Tan, 1977, California Division of Mines and Geology.

- *Native Materials*

Native materials were observed to generally consist of sandy silt, silt, sand, and silty sand to depths of approximately 24 to 34 feet below grade, and of clayey silt from approximately 24 to 34 feet below grade to 34 to 40 feet below grade. In previous drilling and groundwater sampling activities, the clayey silt layer sometimes appeared to be acting as an aquitard.

A detailed description of the materials observed can be found in the well and borehole logs which are included in the Appendix.

2.2.2 Topography

As interpreted from a USGS topographic map (Figure 1), the Property is located at an elevation of approximately 20 to 30 feet above mean sea level. Topography slopes gradually to the south towards Paradise Marsh, where there is a steep drop in elevation at the approximate southern Property boundary.

2.2.3 Water Quality

The Property is interpreted to be located in the La Nacion Subarea (Regional Water Quality Control Board [RWQCB] Basin Number 909.12) within the Lower Sweetwater Hydrologic Area (909.10) of the Sweetwater Hydrologic Unit (909.00). According to the RWQCB, groundwater within this hydrologic subarea has been designated as having existing beneficial uses for municipal, agricultural, and industrial purposes. The hydrologic areas and water use designations were presented in the RWQCB's "Comprehensive Water Quality Plan" (WQ Plan) originally adopted in 1974. Amendments to the WQ Plan, adopted in September 1994 and May 1998 by the RWQCB, were reviewed and used in the preparation of this Report.

2.2.4 Hydrogeology

Based on measurements taken on June 26, 2006, the depth to groundwater at the Property ranged from approximately 28.87 to 31.63 feet below grade, and in the adjacent Paradise Marsh ranged from approximately 1.17 to 1.78 feet below grade. The groundwater gradient between the northern portion of Paradise Marsh and the Property is interpreted to be to the north at approximately 0.005 foot per foot. The groundwater gradient on the Property is interpreted to be flat, 0.0003 to 0.0004 foot per foot. The groundwater elevations in the wells and the interpreted gradient are presented in Figure 20.

2.3 Summary of Previous Property Investigations

2.3.1 Previous Investigations Conducted By Other Consultants

Numerous assessments and subsurface investigations have been conducted at and adjacent to the Property by previous consultants. These assessments and investigations have been summarized in a report titled *Summary of Known Environmental Conditions, CDC Harbor District Redevelopment Project, Environmental Remediation Interim Version* (Summary Report).^{xiii} Data from these investigations are summarized in Figures 2, 3, and 4. Based on review of the previous data, one AOC (AOC 1), three FAOCs (FAOCs 2, 3, and 4), and numerous FOPCs were identified by SCS. AOC 1, the three FAOCs, and the FOPCs are discussed in detail in Section 2.6.

2.3.2 Previous Investigations Conducted By SCS

SCS has conducted previous assessment and mitigation activities at the Property. These included:

- Assessment and mitigation of a former “battery pit”
- Removal of a 1,000-gallon bunker fuel underground storage tank (UST) discovered during demolition activities
- Additional assessment in the vicinity of two USTs
- Groundwater monitoring and surface water sampling

2.3.2.1 Assessment and Mitigation of Battery Pit

In July 2003, SCS personnel directed the excavation of approximately 270 cubic yards of soil and battery waste from the vicinity of the former 20,000-gallon diesel UST pit (which was reportedly backfilled with approximately 50 to 100 used batteries) located in the southern portion of APN 559-160-09. The only components of the batteries observed during the excavation were the plastic casings, a blueish-white powdery substance, which was observed in the inside of some of the casings and in chunks in the soil (interpreted to have been acid residue), and carbon bricks interpreted to have been a conductive component of the battery. Lead components and liquid acid were not observed during excavation. It is interpreted that the lead components of the batteries were recovered and recycled prior to burial.

Confirmation soil samples were collected from the bottom and sidewalls of the excavation, and analyzed for Title 22 metals in general accordance with EPA Method 6010B, and pH in general accordance with EPA Method 150.1. Soil samples were collected from this excavation at approximate 10- to 15-foot intervals along the bottom and sidewalls. A total of 16 soil samples were collected from this excavation. The

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Summary of Known Environmental Conditions, CDC harbor District Redevelopment Project, Environmental Remediation Interim Version, prepared by SCS, and dated January 24, 2001.

excavated soil was stockpiled on visqueen pending off-site disposal. The battery waste was manually separated from the soil adjacent to the excavation and it was then moved to the stockpile staging area, where it was placed on and covered with visqueen pending off-site disposal.

Confirmation soil samples collected from the battery pit excavation were reported to have detectable concentrations of several metals. Detectable concentrations of metals in the confirmation soil samples ranged from 1.34 to 55.5 mg/kg for antimony, from 0.55 to 9.62 mg/kg for arsenic, from 29.1 to 218 mg/kg for barium, 0.91 mg/kg for beryllium, from 0.61 to 238 mg/kg for cadmium, from 5.18 to 81.0 mg/kg for chromium, from 3.43 to 13.9 mg/kg for cobalt, from 6.09 to 1,250 mg/kg for copper, from 17.1 to 6,560 mg/kg for lead, from 0.29 to 1.42 mg/kg for mercury, from 0.75 to 25.0 mg/kg for molybdenum, from 5.12 to 242 mg/kg for nickel, from 0.60 to 3.49 mg/kg for silver, from 16.6 to 34.4 mg/kg for vanadium, and from 24.7 to 5,180 mg/kg for zinc. Concentrations of arsenic and lead were reported to exceed industrial PRGs, and concentrations of cadmium, lead and zinc were reported to exceed total threshold limit concentrations (TTLCs). Twelve soil samples were reported to have arsenic concentrations above the industrial PRG, two soil samples were reported to have lead concentrations above the industrial PRG and TTLC, one soil samples was reported to have a cadmium concentration above the TTLC, and one soil sample was reported to have a zinc concentration above the TTLC.

The assessment and mitigation activities conducted in relation to the battery pit were discussed in detail in the Additional Assessment Report, and will not be repeated here. The results of the confirmation sampling are presented in Table 8 and Figure 5. The former battery pit was located within AOC 1, and was reconsolidated and capped with an engineered cap during the mitigation conducted by the CIWMB.

The engineered cap installed by the CIWMB over AOC 1 was reported to consist of unpaved and paved sections. The unpaved sections were reported to have been constructed with a minimum of 3 feet of clean and compacted imported fill soil. Towards the center of the Property, the thickness of the imported fill soil increases to between 4 and 6 feet. On the slope, in addition to imported fill soil, the engineered cap was also revegetated with native species. The paved sections were reported to have been constructed with a minimum of 1 foot of imported fill soil overlain by either: 2 inches of asphalt over 6 inches of aggregate base (asphalt pavement outside of parking lot), 6 inches of Portland cement concrete over 6 inches of aggregate base (pedestrian pathway), or 1.5 inches of asphaltic concrete over 8 inches of aggregate base (parking lot). For more specific information regarding the construction of the cap, please refer to the CIWMB's Project Completion Report.

2.3.2.2 UST Removal

During the demolition of a former site building, an approximately 1,000-gallon UST was discovered in the south-central portion of APN 559-160-03. In April 2003, the UST was removed by SCS personnel. It was observed to be heavily corroded with many large holes

in both the bottom and top of the tank. Product (interpreted to be bunker fuel) was observed within the bottom portion of the tank and pooled on the soil around the eastern side of the tank. The post-tank removal workplan (PTRW) was implemented after tank removal at the direction of Mr. David Jones, the DEH representative.

Approximately 67 cubic yards of petroleum hydrocarbon-bearing soil were excavated from the vicinity of the UST, stockpiled, and eventually disposed of off-site. Subsequent to implementation of the post-tank removal workplan, an Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report (5-day report) was submitted to the DEH by SCS. DEH personnel reviewed the 5-day report and issued a letter to the Community Development Commission, dated June 3, 2003. The letter stated that the responsible party must take corrective actions including investigation and remediation of soil and groundwater contamination caused by an unauthorized release.

The UST removal and PTRW implementation activities conducted in relation to this UST were discussed in detail in a report titled *Letter Report of Underground Storage Tank Removal and Workplan for Additional Assessment Activities Pursuant to the Requirements of the County of San Diego Department of Environmental Health Conducted at 2501 Cleveland Avenue, National City, California*,^{xiv} and will not be repeated here. The results of the confirmation and stockpiling sampling are presented in Table 6 and Figure 6. Additional assessment was conducted and is discussed in the next section.

2.3.2.3 Hydropunch Sampling in the Vicinity of Two USTs

SCS conducted soil and groundwater sampling in the vicinity of the former 1,000-gallon bunker fuel UST and in the vicinity of the former 2,000-gallon fuel UST (no record of whether UST contained gasoline or diesel). Soil borings EBS1 and EBS2 were advanced to the north and southeast of the east end of the former 1,000-gallon bunker fuel UST. Soil borings EBS3 and EBS4 were advanced to the northwest and southeast of the ends of the former 2,000-gallon UST.

1,000-gallon Bunker Fuel UST

The soil samples collected from the vicinity of the bunker fuel UST were reported to have no detectable concentrations of total petroleum hydrocarbons as gasoline (TPHg), and with the exception of one soil sample (EBS2-10), no detectable concentrations of TPH as diesel (TPHd) or TPH as oil (TPHo). Sample EBS2-10 was reported to have a TPHd concentration of 36 mg/kg, and a TPHo concentration of 280 mg/kg. The soil samples were reported to have no detectable concentrations of benzene, toluene, ethylbenzene, and

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Letter Report of Underground Storage Tank (UST) Removal and Workplan for Additional Assessment Activities Pursuant to the Requirements of the County of San Diego Department of Environmental Health (DEH) Conducted at 2501 Cleveland Avenue, National City, California, prepared by SCS, and dated July 3, 2003.

total xylenes (BTEX); methyl tertiary butyl ether (MTBE); or any of the other fuel oxygenates.

The two groundwater samples collected from borings EBS1 and EBS2 were reported to have no detectable concentrations of TPHg, TPHd, TPHo, BTEX, MTBE, or any of the other fuel oxygenates.

2,000-gallon UST

Petroleum hydrocarbons had been reported in the soil and groundwater in the vicinity of the former 2,000-gallon UST located in the southwestern portion of APN 559-160-21. The source of the petroleum hydrocarbons had not been identified. Soil borings EBS3 and EBS4 were advanced in part to assess whether the location of the former 2,000-gallon UST was the/a source of the petroleum hydrocarbons in this area of the Site.

With the exception of low concentrations of petroleum hydrocarbons (including TPHg, TPHd, ethylbenzene, and total xylenes) in the soil samples collected from 30 feet below grade, no soil samples from borings EBS3 and EBS4 were reported to have detectable concentrations of any analytes. The low concentrations of TPHg, TPHd, ethylbenzene, and total xylenes reported in the soil samples collected from 30 feet below grade are interpreted to have migrated to the locations of EBS3 and EBS4 via groundwater rather than from a source in the soil, and are comparable to the low concentrations of petroleum hydrocarbons previously reported in soil samples collected from 27 to 30 feet below grade from nearby borings U-8, BW-2, MW1, and MW2. Only one boring in the vicinity, BW-7, was reported to have detectable concentrations of petroleum hydrocarbons in shallower soil samples. A soil sample collected from this boring at 15 feet below grade was reported to have had a TPHd concentration of 56.6 mg/kg; and soil samples collected from BW-7 at 5, 10, and 15 feet below grade were reported to have total recoverable petroleum hydrocarbons (TRPH) concentrations ranging from 28 to 41 mg/kg.

The groundwater sample collected from EBS4 was reported to have low concentrations of ethylbenzene (19 micrograms per liter [$\mu\text{g/L}$]) and total xylenes (74 $\mu\text{g/L}$). These reported concentrations were far below the concentrations that had been reported in nearby former well MW1 (approximately 55 feet east of boring EBS4) in 1999. This may be due to the source of the petroleum hydrocarbons being closer to MW2 or due to degradation of the petroleum hydrocarbons since 1999. Based on the available data, the source(s) of petroleum hydrocarbons in the vicinity of the former 2,000-gallon UST remains undetermined; it does not appear that a release from the former 2,000-gallon UST has impacted soil or groundwater in its vicinity, and degradation of the petroleum hydrocarbons in this area of the Property may be occurring.

The assessment activities conducted in relation to these two USTs were discussed in detail in two reports titled *Letter Report of Soil and Groundwater Assessment Activities in the Vicinity of a Former Underground Storage Tank Conducted Pursuant to the*

Requirements of the County of San Diego Department of Environmental Health at 2501 Cleveland Avenue, National City, California^{xv} and *Letter Report of Soil and Groundwater Assessment Activities in the Vicinity of Two Former Underground Storage Tanks at 2501 and 2510 Cleveland Avenue, within the Harbor District Redevelopment Area, National City, California*,^{xvi} and will not be repeated here. The results of the soil and groundwater sampling are presented in Table 7 and Figures 6 and 7. The former 1,000-gallon bunker fuel UST was located within AOC 1, and was reconsolidated and capped with an engineered cap during the mitigation conducted by the CIWMB.

2.3.2.4 Groundwater and Surface Water Sampling

Several groundwater monitoring and sampling events have been conducted at the Property and adjacent marsh since 1999. In general, petroleum hydrocarbons, VOCs, and metals have been reported in some of the wells on the Property, and metals have been reported in the wells in Paradise Marsh and the surface water samples collected from Paradise Creek.

Prior to SCS's involvement at the Property, previous consultants had analyzed groundwater for metals using EPA Method 6010B. This method is applicable for freshwater rather than saline waters. Freshwater analytical methods typically severely exaggerate the estimated concentrations of trace metals. False positives are likely to occur because of interferences during laboratory analysis of the saline water samples. In addition, the detection limits achieved in previous sampling events using EPA Method 6010B were higher than the water quality objectives and so it was not clear whether even the "non-detectable" measurements indicate acceptable levels. When SCS became involved at the Property, we identified both the potential for false positives and the detection limits, as being problems with using EPA Method 6010B to analyze groundwater samples collected from the Property. SCS identified EPA Method 1640 as an appropriate method to use for analyzing the water samples from the Property since it was capable of achieving detection limits lower than the applicable water quality objectives and was designed for brackish and saltwater samples. SCS also identified EPA Method 1669 as the appropriate technique with which to collect the water samples because the samples are handled very carefully in order to avoid cross-contamination during sampling.

During the groundwater sampling conducted in June 2003 by SCS, detectable concentrations of TPH or polynuclear aromatic hydrocarbons (PAHs) were not reported

^{xv} *Letter Report of Soil and Groundwater Assessment Activities in the Vicinity of a Former Underground Storage Tank Conducted Pursuant to the Requirements of the County of San Diego Department of Environmental Health at 2501 Cleveland Avenue, National City, California*, prepared by SCS, and dated February 2, 2004.

^{xvi} *Letter Report of Soil and Groundwater Assessment Activities in the Vicinity of Two Former Underground Storage Tanks at 2501 and 2510 Cleveland Avenue, within the Harbor District Redevelopment Area, National City, California*, prepared by SCS, and dated February 17, 2004.

in any of the groundwater samples collected. During this sampling event, groundwater samples were reported to contain detectable concentrations of metals including arsenic, cadmium, chromium, copper, lead, and zinc. Metal concentrations in the wells on the Property were reported to not exceed Ocean Plan criteria or the California Toxic Rule Criteria (CTRC). Concentrations of arsenic and zinc in the wells in Paradise Marsh were reported to exceed Ocean Plan criteria and CTRC. Concentrations of copper and zinc in the surface water samples from Paradise Creek were also reported to exceed the Ocean Plan Criteria and CTRC.

2.4 Current Property Investigations

2.4.1 Objectives of Current Property Investigations

Based on the available data on AOC1, the FAOCs, and the FOPCs identified in the PMP, a scope of work was prepared to further assess AOC 1, the FAOCs, and FOPCs. The objectives of SCS's scope of work were to:

- Assess the possible presence and concentration of petroleum hydrocarbons, VOCs, metals, and PAHs in the shallow soil in selected locations in AOC 1, and FAOCs 2 and 3, and in the historical railroad maintenance facility and auto wrecking yard portions of the Site that are located within AOC 1.
- Further assess the concentration and extent of petroleum hydrocarbon- and metal-bearing soil in the vicinity of the former vehicle maintenance area and the former 2,000-gallon UST in FAOC 2.
- Further assess the possible presence and concentration of VOCs and metals in soil in selected locations in the vicinity of the former metal plating shop in FAOC 3.
- Assess the possible presence and concentration of landfill gases (such as methane) at the Site.
- Assess the possible presence and concentration of VOCs in soil vapor at the Site over time.
- Assess the likelihood of a significant^{xvii} human health risk in association with any detected VOCs due to the upward migration of soil vapors.
- Assess the presence and concentration of selected metals and VOCs in shallow groundwater at the Property and in Paradise Marsh.

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DEH criterion used in this analysis is one in a million (1.0 E-6) excess lifetime cancer risk (ECR). A high likelihood of risk above this threshold is defined as "significant." For the purposes of this limited HRA, a commercial land use, consistent with the Site's current use, is assumed.

- Assess the presence and concentration of selected metals and VOCs in surface water from Paradise Creek.

2.4.2 Drilling and Sampling of Soil Borings

On July 28, 2004, a direct push-type drilling rig, Stratoprobe®, was used to attempt to drill eight soil borings (soil borings EBS5 through EBS10) to depths of up to approximately 20 feet below grade in the proposed location of the hotel building. Please note, although only six soil borings were planned, the Stratoprobe® met refusal in two of the borings at approximately 2.5 feet below grade and two additional borings were drilled in the vicinity of these borings to target depth. The borings were placed in the proposed location of the hotel and within FAOC 3, the vicinity of the former plating shop. The boring locations are shown on Figures 8 and 9.

During the drilling activities, soil samples were collected at the surface, at approximately 5-foot-depth intervals, at significant lithological changes, and at other appropriate depths based on the professional judgment of the on-site geologist. Groundwater was not encountered during drilling.

Up to five soil samples were collected from each soil boring. A total of 30 samples were collected from the eight soil borings. Soil samples were described in general accordance with the Unified Soil Classification System. Soil sampling and description were conducted in general accordance with the soil sampling guidance presented in the current SAM manual issued by the DEH.

Soil samples were driven into acetate tubes. The ends of the sample tubes were covered with Teflon™ sheeting, and closed tightly with end caps for handling and transportation activities. The sample containers were packed and stored in an ice-filled cooler for delivery to the analytical laboratory. Chain-of-custody procedures were implemented for sample tracking. A written analytical report was provided to SCS by the laboratory upon completion of the sample testing.

As required by San Diego County guidelines, precleaned acetate tubes were used to minimize the likelihood of cross-contaminating a given boring and to minimize the potential for a false positive in the soil samples analyzed. The probe tip and rods were cleaned between borings with a cleaning process consisting of a water-Alconox™ solution wash, and two tap water rinses.

Upon completion of drilling, the borings were backfilled with an approved grout.

2.4.3 Excavation and Sampling of Trenches

On August 12, 13, 16, and 17, 2004, SCS completed eight shallow trenches on the Property. The eight trenches were excavated to approximately 8 feet in depth, and soil

samples were collected at sampling stations at approximate depths of 1, 4, and 8 feet below grade. The trench locations are shown on Figures 8, 9, and 17. The sampling station intervals, number of sampling stations, sampling rationales, and proposed analyses are presented in the following table. Please note, in some cases, based on field observations and the judgement of the on-site professional, sampling station intervals or sampling depths were adjusted.

Trench	Approximate Sampling Station Interval (in feet)	Total Number of Sampling Stations	Analyses	Rationale
T1	33	5	-Selected samples for TPHg, TPHd, and TPHo (EPA Method 8015m) -Three samples with highest TPH concentrations for VOCs (EPA Method 8021)	FAOC 4 Former location of two USTs with reported release of gasoline to soil and groundwater, located in close proximity to proposed hotel
T2	50	8	-Selected samples for lead, copper, chromium, mercury, and zinc (EPA Method 6010B); and VOCs (EPA Method 8021)	
T5	50	6	-Three samples from each trench with highest metal concentrations for full run of Title 22 metals (EPA Method 6010B)	FAOC 3 Former location of plating shop
T3	25	6	-Selected samples for lead, copper, chromium, mercury, and zinc (EPA Method 6010B); and VOCs (EPA Method 8021)	
T4	25	4	-Three samples from each trench with highest metal concentrations for full run of Title 22 metals (EPA Method 6010B)	
T6	18	3	-Selected samples for TPHg, TPHd, and TPHo (EPA Method 8015m) -Three samples from each trench with highest TPHg concentrations for VOCs (EPA Method 8021); with highest TPHd concentrations for PAHs (EPA Method 8310); and with highest TPHo concentrations for VOCs (EPA Method 8021), for Title 22 metals (EPA Method 6010B), and for PCBs (EPA Method 8082)	FAOC 2 Former location of UST and vehicle maintenance pit
T7	33	5		

Trench	Approximate Sampling Station Interval (in feet)	Total Number of Sampling Stations	Analyses	Rationale
T8	43	5	-Selected samples for TPHg, TPHd, and TPHo (EPA Method 8015m); and for lead, copper, chromium, mercury, and zinc (EPA Method 6010B) -Three samples with highest TPHg concentrations for VOCs (EPA Method 8021); with highest TPHd concentrations for PAHs (EPA Method 8310); and with highest TPHo concentrations for VOCs (EPA Method 8021), for Title 22 metals (EPA Method 6010B), and for PCBs (EPA Method 8082)	Within footprint of proposed restaurant/commercial building, located in the vicinity of AOC 1 and historical automotive wrecking yard

Soil samples were collected in stainless steel sampling sleeves with a manual drive sampler. The sample containers were labeled and stored in an ice-filled cooler pending delivery to the laboratory for analysis.

Pursuant to County of San Diego sampling requirements, the sampling equipment was decontaminated on-site between soil samples to minimize the likelihood of cross-contaminating the samples and to minimize the potential for a false positive in the soil samples analyzed.

An excavator was used to excavate the trenches. Upon completion of the trenching and sampling, the trenches were backfilled with the excavated soil. The trenches were compacted by tamping and tire-rolling with the excavator.

2.4.4 Excavation and Sampling of Potholes

In addition to the trenches, on August 12, 13, 16, and 17, 2004, SCS excavated and collected soil samples from 26 potholes located within AOC 1, FAOC 2, FAOC 3, and the area of historical railroad maintenance facility and historical automotive wrecking yard (6 locations in AOC 1, 11 locations in the area of historical automotive wrecking yard and railroad maintenance facility located north of AOC 1, 2 locations in FAOC 2, and 7 locations in FAOC 3 and surrounding area). Two soil samples were collected from each location at depths of approximately 1 and 4 feet below grade. The pothole locations are shown on Figures 8, 9, and 17. The sampling rationales and proposed analyses are presented in the following table.

Pothole	Proposed Analyses	Rationale
P1 through P17	-All samples for TPHg, TPHd, and TPHo (EPA Method 8015m); and for lead, copper, chromium, mercury, and zinc (EPA Method 6010B) -Five samples with highest TPHo concentrations for VOCs (EPA Method 8021), for Title 22 metals (EPA Method 6010B), and PCBs (EPA Method 8082)	Located in and in the vicinity of AOC 1 , and historical automotive wrecking yard and railroad maintenance facility
P18 and P19	-All samples for TPHg, TPHd, and TPHo (EPA Method 8015m) -Sample with highest TPHg concentration for VOCs (EPA Method 8021); with highest TPHd concentration for PAHs (EPA Method 8310); and with highest TPHo concentration for VOCs (EPA Method 8021), for Title 22 metals (EPA Method 6010B), and for PCBs (EPA Method 8082)	FAOC 2 Former location of UST and vehicle maintenance pit
P20 through P25	-All samples for lead, copper, chromium, mercury, and zinc (EPA Method 6010B); and VOCs (EPA Method 8021) -Three samples with highest metal concentrations for full run of Title 22 metals (EPA Method 6010B)	Within footprint of proposed hotel
P26	-All samples for lead, copper, chromium, mercury, and zinc (EPA Method 6010B); and VOCs (EPA Method 8021) -Three samples with highest metal concentrations for full run of Title 22 metals (EPA Method 6010B)	FAOC 3 Former location of plating shop

Soil samples were collected in stainless steel sampling sleeves with a manual drive sampler. The sample containers were labeled and stored in an ice-filled cooler pending delivery to the laboratory for analysis.

Pursuant to County of San Diego sampling requirements, the sampling equipment was decontaminated on-site between soil samples to minimize the likelihood of cross-contaminating the samples and to minimize the potential for a false positive in the soil samples analyzed.

An excavator and backhoe were used to excavate the potholes. Upon completion of the sampling, the potholes were backfilled with the excavated soil. The potholes were compacted by tamping and tire-rolling with the backhoe.

2.4.5 Soil Vapor Survey

The Property was formerly used as a burn dump and landfill gases are therefore not expected to be present. However, since landfill gas monitoring and control may be required if methane or other landfill gases are present, to be prudent, a soil vapor/landfill gas survey was conducted. Also, in order to evaluate potential human health risk to future occupants of the Site, the DEH required that a soil vapor survey be conducted and that, to account for temporal variation, at least three rounds of soil vapor sampling be conducted. The sampling dates and times were discussed with and approved by the DEH prior to conducting fieldwork.

On August 20, 2004, the first round of the soil vapor survey was conducted. Soil vapor probes were advanced in 15 locations within the footprints of the future buildings, in locations where VOCs have been reported in the soil or groundwater in previous sampling assessment activities, and within AOC 1 outside of the building footprints. On September 10 and 14, 2004, the second and third rounds of the soil vapor survey were conducted. Soil vapor probes were advanced in 8 and 9 locations within the footprints of the future buildings and in one location in AOC 1 where the highest methane concentration had been reported during the first round. The soil vapor sampling locations are shown on Figure 17.

The soil vapor samples collected were analyzed for methane and fixed gases in accordance with American Society of Testing and Materials (ASTM) Method D1945-96, and for VOCs in general accordance with EPA Method 8260B. The soil vapor samples were collected from a depth of approximately 5 feet below grade in most locations. Please note, in some locations during the second round survey, the target depths could not be reached due to drilling refusal. The soil vapor samples were collected by H&P Mobile Geochemistry (H&P). Analysis was performed in an on-site mobile laboratory provided by H&P. Chain-of-custody procedures were implemented for sample tracking. A written laboratory report was provided by the laboratory upon the completion of the sample testing. A copy of the standard operating procedure for soil vapor sample collection methodology is included in the Appendix. This methodology was followed for the soil vapor sample collection at the Property.

2.4.6 Drilling and Installation of Three Wells, and Soil Sample Collection

A truck-mounted drilling rig, CME-85, equipped with hollow-stem augers, was used to drill three soil borings (CDC3, CDC4, and CDC5), to depths of up to approximately 40 feet below grade. The following table presents the rationale behind the locations of CDC3, CDC4, and CDC5.

Boring Number	Depth of Boring (feet below grade)	Location	Rationale
CDC3	38	West of former well MW3	Groundwater samples collected from former well MW3 were reported to have concentrations of TCE.
CDC4	40	In vicinity of AOC 2 and former wells MW1, MW2, and NMWA	Past sampling indicated concentrations of BTEX in former wells MW1, MW2, and NMWA; however, during the last monitoring events these wells were dry.
CDC5	40	Within AOC 3	DEH has stated a well must be installed here to further assess potential releases from former metal plating facility within AOC 3.

Notes:

AOC = Area of contamination TCE = Trichloroethylene BTEX = Benzene, toluene, ethylbenzene, and xylene

During the drilling activities, soil samples were collected at approximately 5-foot-depth intervals, at the interpreted capillary fringe, at significant lithological changes, and at other appropriate depths based on the professional judgment of the on-site environmental professional. Continuous sampling was conducted for certain intervals. Groundwater was encountered at an approximate depth of 26 to 28 feet below grade during drilling.

Subsequent to drilling, a groundwater monitoring well was installed in each soil boring. Each well was constructed of 2-inch-diameter polyvinyl chloride (PVC) casing and screen. In wells CDC3 and CDC5, 0.020-inch screened casing was installed from approximately 21 to 36 feet below grade in CDC3 and from approximately 23 to 38 feet below grade in CDC5. In well CDC4, where more fine-grained soil was observed during drilling, 0.010-inch screened casing was installed from approximately 23 to 38 feet below grade. Blank casing was used to complete the casing intervals. Appropriately graded sand filter packs were installed around the well screens and extended approximately 2 feet above and below the screened intervals.

A minimum of 3 feet of bentonite seal was placed and hydrated above the sand filter packs. The annular space above the seals was filled with bentonite grout up to 3 feet below grade. The wells were completed with monument posts set in 5-foot-diameter concrete aprons and surrounded by protective posts. The monitoring well construction details are included in the Appendix.

After the installation of the sand pack, but before the bentonite seal was placed, the wells were developed in general accordance with SAM guidelines. The wells were developed with a surge block and pumped until the water was observed to be clear. In accordance with AB 2886, the location of the new and existing wells, and the elevations of the ground surface and top of the casing were surveyed to sub-meter accuracy.

All the soil samples collected above the saturated zone were analyzed for VOCs, and the samples collected at 5 and 10 feet below grade were analyzed for Title 22 metals. The soil samples were delivered to a fixed-base, state-accredited laboratory for analysis. A total of

27 soil samples were analyzed for VOCs in general accordance with EPA Method 8260B, and 6 soil samples were analyzed for Title 22 Metals in general accordance with EPA Method 6010B.

SCS submitted the necessary documentation to EFR Environmental Services, Inc. (EFR) for the disposal of the drummed soil cuttings and rinsate water. The drums have been transported to EFR's Dome Rock facility in Quartzsite, Arizona for treatment and reuse. A copy of the Non-Hazardous Waste Manifest is included in the Appendix.

2.4.7 Sampling and Analysis of Groundwater Monitoring Wells and Surface Water

In accordance with DEH guidelines, the first groundwater monitoring was performed more than 72 hours after well development. Groundwater sampling was conducted using two different methods. The groundwater sampling for metals was conducted in general accordance with EPA Method 1669 (Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels) and the sampling for VOCs was conducted in general accordance with DEH low-flow sampling guidance as presented in the SAM Manual.

In addition to wells CDC3, CDC4, and CDC5, groundwater samples were also collected from wells JMW1, JMW2, JMW3, JMW4, and JMW5, located just south of the Property within Paradise Marsh. The groundwater monitoring was conducted at the end of an outgoing tide. The groundwater monitoring of the Property will be conducted quarterly for one year. This Report includes the results of the first round of quarterly sampling.

2.4.7.1 Groundwater Sampling in Accordance with EPA Method 1669

On June 20 and 21, 2006, groundwater samples for metals analysis were collected in general accordance with EPA Method 1669. The objective of this method is to reduce the potential for introducing external contaminants (dust from the nearby freeway or industrial activities, sampling equipment, well structures, etc.) and cross-contamination between wells to the lowest degree practicable. Because of the low levels of detection achievable by the proposed analytical method (less than 1 microgram per liter [$\mu\text{g/L}$]), very small amounts of contaminants could cause significant changes in the concentrations observed. The samples were handled as little as possible in the field to reduce the potential for external contamination. Therefore, no purging was conducted prior to sampling and water level measurements were not taken so as not to introduce contaminants into the wells. Also, samples were not filtered in the field; instead they were filtered in the laboratory because this reduces the likelihood of sampling contamination. None of the samples collected for metals analysis were acidified (preserved).

The methodology designed for ultra-low detection sampling for metals requires adherence to strict procedures and requires two people, designated as "clean hands" and "dirty hands," to conduct the sampling. The procedures employ several extra precautions in the preparation of sample containers and sample collection. These precautions minimize the introduction of contaminants into the water samples from exogenous

sources such as dust; surface films on the water; contaminated substances on sample containers, collection devices, structures and plumbing fixtures; or the hands of sampling or analytical personnel.

Polyethylene sample containers were obtained in advance of the sampling from Battelle Pacific Northwest Division, Marine Sciences Laboratory (Battelle). The sample containers and caps to be used for the metals analysis were specially precleaned by Battelle's laboratory using an acid soak. After drying, each container was capped and placed inside a sterile Ziplock bag. Each container and sterile bag was then placed in a larger sterile Ziplock bag. This double-bagging was done to isolate individual sample containers from one another, to prevent cross-contamination by containing any leaking water. Sample containers were placed in a plastic cooler for transport.

The groundwater samples for metals analysis were collected by two people using clean collection techniques described in EPA Method 1669 (developed in part by Dr. Eric Crecelius of Battelle) modified for sample collection with a bailer in a manner described by Dr. Crecelius of Battelle. For purposes of sample collection, one SCS representative was designated as the "clean hands" sampler and another was designated as the "dirty hands" sampler. Both individuals wore non-talc, non-latex gloves during collection.

During the groundwater sampling, all sampling materials and containers were placed downwind of the groundwater well being sampled. At each groundwater monitoring well, the "dirty hands" sampler opened the well lid and removed the well cap. At this point, the "clean hands" sampler donned three pairs of gloves and the "dirty hands" two pairs of gloves. The "dirty hands" sampler then ripped open the top of the bailer bag and opened the plastic Ziplock bag containing the cotton string. Without touching the outside of the plastic Ziplock bag that contains the string, the "clean hands" sampler reached into the Ziplock bag and grabbed the end of the string. The "dirty hands" sampler pushed the bailer up the bag so that the very end of the bailer protruded from the bag. The "clean hands" sampler then tied the string to the end of the bailer. The bailer and string were set aside.

Both the "clean hands" and "dirty hands" samplers then removed their outer pair of gloves. The "dirty hands" sampler opened the cooler and removed one of the larger Ziplock bags and opened it. The "clean hands" sampler reached inside the larger Ziplock bag and opened the inner Ziplock bag and remove the sample container. The "dirty hands" sampler then closed the outer Ziplock bag and placed it back in the cooler. In a manner to prevent contact with any surface except the clean gloves of the "clean hands" sampler, the "clean hands" sampler labeled the outside of the sample container with the sample designation using a Sharpie marker.

After labeling the sample container, the "clean hands" sampler removed the outer pair of gloves again. The "dirty hands" sampler changed gloves, and carefully removed the bailer from the plastic bag, touching only the top of the bailer and pushing the plastic spout out of the top of the bag. The "clean hands" sampler grabbed the plastic spout, while the "dirty hands" slowly lowered the bailer into the well carefully making sure not

to lower it so much that the string came into contact with the water. Once the bailer filled, the “dirty hands” sampler removed the bailer from the well. The “clean hands” sampler uncapped the sample container, inserted the spout into the bottom of the bailer, and positioned the sample container beneath the bottom of the bailer so that the sample container could be filled by the bailer without coming into contact with it. The sample container was overfilled and the “clean hands” sampler recapped it. The “dirty hands” sampler dropped the bailer, removed the larger Ziplock bag from the cooler, and opened the larger Ziplock bag. The “clean hands” sampler reached into the larger Ziplock bag, replace the sample container into the smaller Ziplock bag which it had been removed from, and resealed the smaller bag. The “dirty hands” sampler then resealed the larger Ziplock bag and replaced it in the cooler.

During this entire procedure, care was taken to avoid contact between the samplers’ gloves or the sample containers and any surfaces or substances that could be contaminated. All materials used for sampling at each sampling point were disposed of and not used again.

Three types of QA/QC samples (a trip blank, a blind field blank, and a blind duplicate sample) were collected and analyzed in general accordance with EPA Method 1669 to evaluate potential sources of contamination.

The purpose of the trip blank was to provide an assessment of potential contamination during transport of the sample containers to and from the laboratory. For this blank, a sample of reagent water, double-bagged identically to the sample containers, was prepared by Battelle, sent to SCS, and shipped back to Battelle with the other samples. The trip blank was never removed from the cooler.

The purpose of the blind field blank was to provide an assessment of the potential for the collection procedure to contribute contamination. For this blank, a sample of deionized water was poured through a bailer into one of the sample containers sent by the lab.

The purpose of the blind duplicate sample was to provide an assessment of the quality and precision of the laboratory.

The groundwater samples were analyzed for metals (arsenic, cadmium, chromium, copper, lead, and zinc) in general accordance with EPA Method 1640. This method is an EPA-approved low-detection method designed for the analysis of trace metals in brackish water or seawater.

2.4.7.2 Groundwater Sampling in Accordance with DEH Low-Flow Sampling Guidance

Subsequent to the groundwater sampling using EPA Method 1669, dedicated pumps were placed in each monitoring well, and, approximately 24 hours later, on June 22 and 23, 2006, the groundwater monitoring wells were sampled for VOCs in accordance with low-

flow sampling guidance as presented in the SAM Manual. The dedicated pumps were placed near the end of the outgoing tide so that the water levels during pump placement would be similar to the water levels that would be encountered during sampling, and the pump intakes were positioned in each well to be at the approximate center of the wetted screen near the end of the outgoing tide.

Prior to the low-flow sampling, the groundwater monitoring wells were monitored for depth to groundwater and the presence of light non-aqueous phase liquid (LNAPL) using an interphase probe with the manufacturer-reported accuracy of 0.01 foot.

Water was purged from each well using a dedicated bladder pump in conjunction with dedicated, non-reactive, polyethylene tubing. Continuous water level readings were taken so that water drawdown did not exceed 0.33 foot. If depth-to-water measurements increased by more than 0.33 foot in the wells during purging, the pump flow rate was reduced or terminated until the water level recharged to less than a 0.33 foot of drawdown. Water was pumped through a flow cell of known interior volume containing a calibrated water quality meter capable of measuring pH, dissolved oxygen, conductivity, salinity, total dissolved solids, temperature, turbidity, and oxidation reduction potential. The water quality meter and associated low-flow cell were decontaminated prior to use at each well.

After three stable^{xvi} consecutive water quality measurements, a groundwater sample was collected from each well by bypassing the flow cell and pumping the sample directly into appropriate, laboratory-supplied containers. With one exception (JMW5), all samples were collected after achieving three stable consecutive groundwater measurements. During the purging of JMW5, the turbidity would not drop below 50 nephelometric turbidity units (NTUs). After purging for two hours, the well was sampled because the tide was starting to come in. It was subsequently discovered that a valve was missing from the dedicated pump in that well. The pump has been repaired. Purge logs are included in the Appendix.

The samples were labeled and placed in an ice-filled cooler for transport under chain of custody to the laboratory for analysis. Purge water was placed in a 55-gallon drum and was transported off-site for disposal under manifest. A copy of the waste disposal manifest is included in the Appendix.

The three QA/QC samples (a trip blank, a blind field blank, and a blind duplicate sample) were collected and analyzed during this sampling event. All the QA/QC samples were analyzed for VOCs/oxygenates.

The groundwater samples were analyzed for VOCs and oxygenates in general accordance with EPA Method 8260B by a state-accredited laboratory.

xvi

Stable refers to acceptable parameter-specific variance ranges listed in the 2005 SAM Manual.

2.4.7.3 Surface Water Sampling

In addition to the above-described groundwater monitoring well sampling, two surface water samples were obtained from Paradise Creek during each of the two previously described sampling events. The samples were obtained during the end of an outgoing tide. The surface water samples were collected in generally the same manner as the groundwater samples. The intent of this sampling is to evaluate the quality of the surface water entering the marsh in comparison to the groundwater samples. The surface water samples were collected approximately 4 to 6 inches below the water surface.

The surface water samples from Paradise Creek were analyzed for VOCs and oxygenates in general accordance with EPA Method 8260B, and for metals (cadmium, chromium, copper, lead, and zinc) in general accordance with EPA Method 1640.

2.5 Results of Current Property Investigation

2.5.1 Soil Results

The soil standards described in the MWP are applicable to soils that remain relatively undisturbed during construction activities. The primary constituents of concern (CoCs) at the Property are petroleum hydrocarbons associated with former USTs, and burn ash constituents such as metals and polynuclear aromatic hydrocarbons (PAHs) which are located within AOC 1. The results of the soil sampling are presented in Tables 1, 2, 3, 4, and 5, and Figures 8, 9, 10, 11, 12, 13, 14, 15, and 16. Laboratory reports are included in the Appendix.

2.5.1.1 Petroleum Hydrocarbons

Selected soil samples collected from Trench T1 (located within FAOC 4), Trench 5 (located within footprint of proposed hotel building, samples from this trench were not originally planned to be analyzed for TPH; however, based on field observations [staining and odor] it was decided to additionally analyze these selected samples from this trench for TPH), Trenches T6 and T7 (located within FAOC 2), and Trench T8 (located within footprint of proposed restaurant/commercial building, and in vicinity of AOC 1 and the former automotive wrecking yard); and Potholes P1 through P17 (located within and in the vicinity of AOC 1, and the former automotive wrecking yard and railroad maintenance facility), and Potholes P18 and P19 (located within FAOC 2) were analyzed for TPHg, TPHd, and TPHo in general accordance with modified EPA Method 8015.

A total of 87 soil samples were analyzed for TPHg, TPHd, and TPHo. Of these 87 soil samples, two soil samples were reported to have detectable concentrations of TPHg, one soil sample was reported to have a detectable concentration of TPHd, and seven soil samples were reported to have detectable concentrations of TPHo. The detectable TPHg concentrations were reported to be 0.8 and 194 milligrams per kilogram (mg/kg), the

detectable TPHd concentration was reported to be 45,000 mg/kg, and the detectable TPHo concentrations were reported to range from 51 to 150 mg/kg.

With the exception of one soil sample, the TPH-containing soil samples were all collected from six potholes located within AOC 1, and appeared to occur with burn ash. These samples locations within AOC 1 were reconsolidated and capped with an engineered cap during the mitigation conducted by the CIWMB. The one soil sample reported to have a detectable concentration of TPHo (84 mg/kg) and not located within AOC 1, was located within FAOC 2. This reported concentration is considered de minimis and no mitigation is proposed.

2.5.1.2 VOCs

The soil samples collected from borings EBS5 to EBS10; selected soil samples collected from Trenches T2 and T5 (located within footprint of proposed hotel building); Trenches T3 and T4 (located within FAOC 3); Trench T6 (located within FAOC 2); Potholes P1, P3, P9, P13, and P19 (located within and adjacent to AOC 1 and FAOC 2); Potholes P20 through P23 and P26 (located within and adjacent to FAOC 3 and footprint of proposed hotel building), and wells CDC3 through CDC5 were analyzed for VOCs in general accordance with EPA Method 8021B or 8260B.

A total of 121 soil samples were analyzed for VOCs. Of these 121 soil samples, 8 soil samples were reported to have detectable concentrations of VOCs. Most of these samples were collected from wells CDC3 and CDC5 at depths between 26 and 34 feet below grade. One sample from CDC3 was reported to have a sec-butylbenzene (sec-BB) concentration of 1,500 micrograms per kilogram ($\mu\text{g/kg}$) and a carbon disulfide concentration of 7 $\mu\text{g/kg}$. Four samples collected from CDC5 were reported to have detectable concentrations of toluene (2,500 to 100,000 $\mu\text{g/kg}$), ethylbenzene (2,000 to 89,000 $\mu\text{g/kg}$), total xylenes (11,700 to 470,000 $\mu\text{g/kg}$), 1,3,5-trimethylbenzene (1,3,5-TMB) (2,400 to 93,000 $\mu\text{g/kg}$), 1,2,4-TMB (8,000 to 300,000 $\mu\text{g/kg}$), sec-BB (110 to 1,800 $\mu\text{g/kg}$), n-butylbenzene (490 and 760 $\mu\text{g/kg}$), n-propylbenzene (860 to 53,000 $\mu\text{g/kg}$), isopropylbenzene (270 to 14,000 $\mu\text{g/kg}$), 4-isopropyltoluene (100 to 6,100 $\mu\text{g/kg}$), and naphthalene (740 to 36,000 $\mu\text{g/kg}$). In addition, several samples from CDC3 and CDC5 were reported to have methylene chloride concentrations of 5 to 6 $\mu\text{g/kg}$. These concentrations are interpreted to possibly be from laboratory contamination.

One soil sample collected from Trench 2 was reported to have a detectable trichloroethene (TCE) concentration of 10 $\mu\text{g/kg}$; one sample collected from Pothole P1 (within AOC 1) was reported to have a benzene concentration of 3,700 $\mu\text{g/kg}$, a toluene concentration of 5,840 $\mu\text{g/kg}$; an ethylbenzene concentration of 1,320 $\mu\text{g/kg}$, and a total xylenes concentration of 4,290 $\mu\text{g/kg}$; and one sample collected from Pothole 13 (within AOC 1) was reported to have a toluene concentration of 9 $\mu\text{g/kg}$ and a total xylenes concentration of 16 $\mu\text{g/kg}$. No other VOCs were reported in detectable concentrations. The VOC-containing soil samples were collected from the capillary fringe in two monitoring wells, one sampling location in Trench T2 located adjacent to FAOC 3, and from two potholes located within AOC 1.

The areas of VOC-containing soil located within AOC 1 were reconsolidated and capped with an engineered cap during the mitigation conducted by the CIWMB. The VOC-containing soil samples from wells CDC3 and CDC5, and Trench 2 were located in the vicinity of the proposed hotel building. The soil samples from wells CDC3 and CDC5 were located at depths of 26 to 34 feet below grade; therefore, there will be no exposure to the soil containing these VOCs during construction or once the Property has been redeveloped. The soil sample collected from Trench 2 and reported to have a detectable TCE concentration of 10µg/kg, is located in the shallow soil within an area where the soil will likely be excavated (so that a subsurface slab can be demolished), and reused on-site.

With the exception of the reported concentrations of total xylenes, 1,3,5-TMB, and 1,2,4-TMB in soil sample CDC5-30 at a depth of 30 feet below grade, the reported concentrations of VOCs located in the vicinity of the proposed hotel did not exceed PRGs. Based on the results of the soil vapor survey and limited human health risk assessment, discussed in 2.5.2 and 2.5.4, there is no significant human health risk from residual concentrations of VOCs remaining at the Property and therefore no mitigation is proposed.

2.5.1.3 Metals

Selected soil samples collected from borings EBS5 to EBS10; and from Trenches T2 and T5 (located within footprint of proposed hotel building, Trenches T3 and T4 (located within FAOC 3), Trench T6 (located within FAOC 2), and Trench T8 (located within footprint of proposed restaurant/commercial building, and in vicinity of AOC 1 and the former automotive wrecking yard); and Potholes P1 through P17 (located within and in the vicinity of AOC 1, and the former automotive wrecking yard and railroad maintenance facility), Pothole P19 (located within FAOC 2), and Potholes P20 through P26 (located within and adjacent to FAOC 3 and footprint of proposed hotel building) were analyzed for chromium, copper, lead, mercury, and zinc in general accordance with EPA Methods 6010B and 7471A. Soil samples collected from wells CDC3 through CDC5 from approximately 5 and 10 feet below grade were analyzed for Title 22 metals in general accordance with EPA Methods 6010B and 7471A.

A total of 128 soil samples from borings EBS5 through EBS10, the trenches, the potholes, and wells CDC3 through CDC5 were analyzed for chromium, copper, lead, mercury, and zinc. Of these 128 soil samples, 128 soil samples were reported to have detectable concentrations of chromium, copper, and zinc; 127 soil samples were reported to have detectable concentrations of lead; and 6 soil samples were reported to have detectable concentrations of mercury. The detectable chromium concentrations were reported to range from 3.08 to 443 mg/kg, the detectable copper concentrations were reported to range from 3.17 to 13,300 mg/kg, the detectable lead concentrations were reported to range from 0.39 to 27,900 mg/kg, the detectable mercury concentrations were reported to range from 0.22 to 3.80 mg/kg, and the detectable zinc concentrations were reported to range from 8.81 to 31,800 mg/kg.

With the exception of the lead concentrations in four soil samples collected from within AOC 1, the reported metal concentrations did not exceed the CHHSLs for chromium, copper, lead, mercury, or zinc. Four soil samples collected from within AOC 1 were reported to have lead concentrations, ranging from 12,200 to 27,900 mg/kg, which exceeded the CHHSLs for lead. However, this lead-bearing soil has been consolidated and placed beneath the engineered cap in AOC 1 by the CIWMB. Chromium, copper, lead, mercury, and zinc concentrations outside of AOC 1 were not reported to exceed the CHHSLs.

In addition, 10 soil samples from the potholes and trenches (most with elevated concentrations of chromium, copper, lead, mercury, or zinc), and six soil samples from wells CDC3 through CDC5 were analyzed for the full complement of Title 22 Metals. The reported metal concentrations were reported not to exceed CHHSLs, with the exceptions of antimony, arsenic, and cadmium. Arsenic concentrations are further discussed in the following paragraphs.

While antimony, arsenic, and cadmium concentrations were reported to exceed CHHSLs in some samples collected from AOC 1, these areas are now consolidated beneath the engineered cap. A summary of these samples follows. Within AOC 1, one soil sample was reported to have an antimony concentration of 626 mg/kg, five soil samples were reported to have arsenic concentrations ranging from 1.73 to 19.3 mg/kg, and three soil samples were reported to have cadmium concentrations ranging from 14.0 to 89.6 mg/kg.

Arsenic concentrations were reported to exceed the CHHSL in several samples collected outside of AOC 1. Nine soil samples were reported to have arsenic concentrations ranging from 0.726 to 4.02 mg/kg outside of AOC 1. Please note, arsenic is present in California soils in concentrations that exceed risk criteria under naturally occurring conditions. The CHHSL for arsenic is 0.24 mg/kg and the California-modified PRG is 0.25 mg/kg; however, arsenic is known to naturally occur in soil, particularly western soils, in concentrations well above the CHHSL and PRG. Based on a USGS report, the background concentrations of arsenic in the western United States range from 2.8 to 10.9 mg/kg. Based on a report prepared specifically for California soils, the background concentrations of arsenic in California soil range from 0.6 to 11.0 mg/kg. Based on our experience with the DTSC, the upper range of background arsenic concentrations is typically accepted for risk assessment purposes. Arsenic concentrations in soil samples recently collected on the Property outside of AOC 1 were reported to range from 0.726 to 4.02 mg/kg, well within the low end of the background range; therefore, even though the arsenic concentrations exceed the risk-based criteria, no mitigation of soils is proposed based on the reported arsenic concentrations.

In summary, while soil samples with elevated metal concentrations were collected from locations throughout the Property, the soil samples with the highest metal concentrations were found within AOC 1 and in most cases appeared to occur with burn ash. This soil has been consolidated with and beneath the engineered cap, as previously described.

Elevated metal (lead) concentrations were also reported in six soil samples collected from FAOC 3 and beneath portions of the future hotel building.

In summary, with the exception of arsenic concentrations, ranging from 0.726 to 4.02 mg/kg, no soil samples collected from the Property outside of AOC 1 were reported to contain metal concentrations exceeding the CHHSLs. The arsenic concentrations are interpreted to represent naturally occurring background concentrations. Therefore, no further mitigation of soil is proposed.

2.5.1.4 PAHs

One sample, P1-2-4, collected from Pothole P1 within AOC 1 was reported to have a TPHd concentration of 45,000 mg/kg and was therefore also analyzed for PAHs in general accordance with EPA Method 8310. This sample was collected from a football-sized clump of material observed to consist of a viscous tar-like substance mixed with soil.

Sample P1-2-4 was reported to have detectable concentrations of several PAHs, including an acenaphthene concentration of 4,200 mg/kg, an acenaphthylene concentration of 960 mg/kg, an anthracene concentration of 500 mg/kg, a benz(a)anthracene concentration of 400 mg/kg; a benzo(a)pyrene concentration of 290 mg/kg, a benzo(b)fluoranthene concentration of 100 mg/kg, a benzo(ghi)perylene concentration of 220 mg/kg, a benzo(k)fluoranthene concentration of 72 mg/kg, a chrysene concentration of 300 mg/kg, a dibenzo(a,h)anthracene concentration of 350 mg/kg, a fluoranthene concentration of 1,500 mg/kg, a fluorene concentration of 1,100 mg/kg, an indeno(1,2,2-cd)pyrene concentration of 160 mg/kg, a naphthalene concentration of 3,700 mg/kg, a phenanthrene concentration of 3,400 mg/kg, and a pyrene concentration of 1,600 mg/kg.

The PAH-containing material was located within AOC 1 and was reconsolidated and placed beneath an engineered cap during the mitigation conducted by the CIWMB.

2.5.1.5 PCBs

Seven soil samples were reported to have detectable concentrations of TPHo and were therefore also analyzed for PCBs in general accordance with EPA Method 8082.

Four of the seven soil samples were reported to have detectable concentrations of PCBs, and the detectable PCB concentrations were reported to range from 135 to 594 µg/kg. The samples with detectable concentrations of PCBs were reported to be located within AOC 1, and were reconsolidated and placed beneath an engineered cap during the mitigation conducted by the CIWMB.

2.5.2 Soil Vapor Results

The results of the soil vapor sampling are presented in Table 11 and Figure 17. Laboratory reports are included in the Appendix.

2.5.2.1 VOCs

Over three sampling events, a total of 32 soil vapor samples were collected from 15 locations within the footprints of the future buildings, in locations where VOCs have been reported in the soil or groundwater in previous sampling assessment activities, and within AOC 1 outside of the building footprints. The soil vapor samples were analyzed for VOCs in general accordance with EPA Method 8260B.

VOCs were reported in detectable concentrations in 19 samples collected from nine different locations. Only three VOCs were reported in detectable concentrations: benzene, toluene, and trichlorofluoromethane (freon or TCFM). The detectable benzene concentrations were reported to range from 0.1 to 0.5 micrograms per liter as vapor ($\mu\text{g/L-v}$), detectable toluene concentrations were reported to range from 1.0 to 1.6 $\mu\text{g/L-v}$, and the detectable TCFM concentrations were reported to range from 1.3 to 2.8 $\mu\text{g/L-v}$.

The VOC-containing soil vapor samples were collected from FAOCs 2, 3, and 4; the vicinity of Pothole P1; and generally the northern portion of the Property.

2.5.2.2 Methane and Fixed Gases

The 32 soil gas samples were also analyzed for methane and fixed gases in general accordance with ASTM Method D1945-96.

Methane was reported in detectable concentrations in six samples collected from four different locations. The detectable methane concentrations were reported to range from 11 to 640 $\mu\text{g/L-v}$. With the exception of the three soil gas samples collected from SV12, the detectable methane concentrations were reported to not exceed 16 $\mu\text{g/L-v}$. The three soil gas samples collected from SV12 were reported to have detectable methane concentrations ranging from 340 to 640 $\mu\text{g/L-v}$. This is well below the action level of 12,500 mg/L-v established by the County of San Diego. Therefore, no mitigation or ongoing monitoring for methane is proposed.

Detectable carbon dioxide concentrations were reported to range from 0.16 to 8.8 percent. Detectable oxygen concentrations were reported to range from 3.2 to 21 percent. Detectable nitrogen concentrations were reported to range from 76 to 91 percent.

The VOC-containing soil gas samples were collected from FAOCs 2, 3, and 4; the vicinity of Pothole P1; and generally the northern portion of the Properties.

2.5.3 Groundwater and Surface Water Sampling Results

The groundwater and surface water sample results for organic compounds are presented in Table 9 and Figure 18, and the groundwater and surface water sample results for

metals are presented in Table 10 and Figure 19. Laboratory reports are included in the Appendix.

2.5.3.1 VOCs/Oxygenates

Several VOCs, including 1,2-dichloroethane (1,2-DCA), toluene, ethylbenzene, total xylenes, sec-BB, n-propylbenzene, 1,3,5-TMB, 1,2,4-TMB, naphthalene, IPB, acetone, 2-butanone, and/or n-butylbenzene, were reported in detectable concentrations in the groundwater or surface water samples CDC3, CDC4, CDC5, JMW4, and SW1. None of the other groundwater or surface water samples were reported to contain detectable concentrations of VOCs.

The groundwater sample collected from well CDC3 was reported to have no detectable concentrations of VOCs, with the exception of sec-BB concentrations of 8.2/9.1 micrograms per liter ($\mu\text{g/L}$) (a blind duplicate sample, called JMW6 from CDC3, was also collected and analyzed). The groundwater sample collected from well CDC4 was reported to have no detectable concentrations of VOCs, with the exception of a 1,2-DCA concentration of 9.2 $\mu\text{g/L}$. The groundwater sample collected from well CDC5 was reported to have detectable concentrations of several fuel constituents, including toluene (180 $\mu\text{g/L}$), ethylbenzene (34 $\mu\text{g/L}$), total xylenes (400 $\mu\text{g/L}$), n-propylbenzene (12 $\mu\text{g/L}$), 1,3,5-TMB (31 $\mu\text{g/L}$), 1,2,4-TMB (110), naphthalene (18 $\mu\text{g/L}$), IPB (5.7 $\mu\text{g/L}$), and n-butylbenzene (7.2 $\mu\text{g/L}$). The groundwater sample collected from well JMW4 in Paradise Marsh was reported to have no detectable concentrations of VOCs, with the exception of an acetone concentration of 5.2 $\mu\text{g/L}$. The surface water sample SW1 collected from Paradise Creek was reported to have no detectable concentrations of VOCs, with the exception of an acetone concentration of 3.6 $\mu\text{g/L}$ and a 2-butanone concentration of 1 $\mu\text{g/L}$.

The concentration of 1,2-DCA (9.2 $\mu\text{g/L}$) in sample CDC4 and the concentration of toluene (180 $\mu\text{g/L}$) in sample CDC5 were reported to exceed the MCLs (0.5 $\mu\text{g/L}$ for 1,2-DCA and 150 $\mu\text{g/L}$ for toluene). None of the other reported VOC concentrations were reported to exceed MCLs.

2.5.3.2 Metals

Groundwater and surface water samples were reported to have detectable concentrations of metals including arsenic, cadmium, chromium, copper, lead, and zinc. Detectable concentrations of arsenic were reported to range from 4.18 to 1,028 $\mu\text{g/L}$ in the groundwater samples, and to be 1.96 and 5.12 $\mu\text{g/L}$ in the surface water samples. Detectable concentrations of cadmium were reported to range from 0.0441 to 1.97 $\mu\text{g/L}$ in the groundwater samples, and to be 0.149 and 1.59 $\mu\text{g/L}$ in the surface water samples. Detectable concentrations of chromium were reported to range from 0.508 to 14.4 $\mu\text{g/L}$ in the groundwater samples, and to be 0.674 and 13.0 $\mu\text{g/L}$ in the surface water samples. Detectable concentrations of copper were reported to range from 1.15 to 90.9 $\mu\text{g/L}$ in the

groundwater samples, and to be 7.50 and 67.6 µg/L in the surface water samples. Detectable concentrations of lead were reported to range from 1.38 to 292 µg/L in the groundwater samples, and to be 2.71 and 116 µg/L in the surface water samples. Detectable concentrations of zinc were reported to range from 8.87 to 361 µg/L in the groundwater samples, and to be 20.4 and 298 µg/L in the surface water samples.

Overall concentrations of metals were reported to be higher than in previous events. In general, concentrations of metals were observed to be higher in the marsh wells (particularly wells JMW1, JMW3, and JMW4 in the northwest portion of the marsh) and in the surface water sample SW1 (collected from where Paradise Creek enters Paradise Marsh), than in the Property wells. Arsenic, cadmium, and zinc concentrations in the Property wells were not reported to exceed Ocean Plan criteria or CTRC. The chromium concentration in well CDC3, the copper concentrations in wells CDC3 and CDC5, and the lead concentrations in wells CDC3 and CDC5 were reported to exceed Ocean Plan criteria and CTRC. Concentrations of arsenic, cadmium, chromium, copper, lead, and zinc in the marsh wells were reported to exceed Ocean Plan criteria and CTRC. Concentrations of chromium, copper, lead, and zinc in the surface water samples from Paradise Creek were reported to exceed Ocean Plan criteria and CTRC.

As required by the DEH, the wells will be monitored and sampled in the future to assess compliance with ARARs.

2.5.4 Limited Human Health Risk Assessment

The estimation of potential human health risks associated with the upward migration of vapors from soil and groundwater has been extensively evaluated by the DEH. The spreadsheets used in this analysis by SCS were developed by the DEH. The evaluation of health risk is based upon indoor vapor concentrations estimated from the rate of vapor phase diffusion of VOCs through soil and the building foundation (i.e., the transport rate), the ventilation and use characteristics of the building (i.e., the dose), and the relative toxicity of the VOCs specific to vapor inhalation (i.e., the health risk associated with the estimated dose) for a given end-use scenario. The estimation of relative toxicity of vapors that could potentially accumulate in the building spaces is based upon carcinogenic and non-carcinogenic toxicity values published by Cal-EPA.

Property conditions indicate that VOCs may originate from either impacted soil or groundwater, so direct measurement of soil vapor was conducted. Although the reported VOC concentrations in soil vapor were, in our experience, quite low, since concentrations of VOC-bearing soil vapor were detected during the soil vapor survey, a limited human health risk assessment was conducted to assess the potential for significant^{xvii} human health risk posed to future users of the Property due to the upward migration of the detected vapor.

The human health risk assessment was conducted in general accordance with the DEH methodology and relied upon Property-specific data where available. It was assumed that the soil vapor is in chemical equilibrium with soil and pore water. The rate of the chemical diffusion from subsurface soil vapor into a building was estimated, based upon properties of the VOCs. Finally, the potential human exposure to, and health risk from, the VOCs was estimated based on the duration of time that an individual is assumed to occupy the building and the relative VOC concentrations that may occur within the building. The exposure concentration is based on the rate of diffusion into the building and the ventilation rate within the building. The human health risk is based on the exposure concentration, inhalation rate, and the relative toxicity of a given VOC.

According to the methodology described in the SAM Manual, the potential indoor air concentration of a contaminant as a result of vapor-phase transport from soil beneath a building can be estimated based upon soil vapor data and an understanding of soil and building conditions. The only known complete exposure pathway after Property redevelopment will be vadose zone vapor-phase migration to the surface. Based on the known redevelopment plans, the Property will be redeveloped with a hotel building, a restaurant/commercial building and surface parking. There is a potential concern that future occupants of the hotel and restaurant may be exposed to VOC-bearing soil vapor.

The highest reported concentrations of benzene, toluene, and TCFM were conservatively assumed to be representative of soil vapor and were used to estimate the total diffusion-driven vapor flux into the future Property buildings. The results of the soil vapor survey are presented Table 11, and the laboratory report is included in the Appendix. The Excel spreadsheets for the risk calculations associated with these VOCs (obtained from the DEH) are presented in the Appendix.

The following assumptions were used to estimate human health risk:

- The highest reported benzene, toluene, and TCFM concentrations reported are conservatively assumed to occur uniformly across the Properties.
- The buildings are assumed to be ventilated at an exchange rate of 1.44 air exchanges per hour, using the design air exchange rates for new commercial/industrial buildings as defined by the American Society for Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE).
- A commercial adult exposure scenario is used in which the adult worker weighs 70 kilograms, works at the Property 12 hours per day, for 5 days a week, for 50 weeks a year, for 25 years.
- The future building first-floor interior heights are assumed to be 10 feet (3.05 meters).
- The calculations presented in this analysis use standard (DEH default) physical parameters to describe soil conditions (30 percent total porosity, 20 percent air-

- filled porosity).
- Both carcinogenic and noncarcinogenic health risks are estimated. Of the VOCs reported in soil vapor, benzene is considered to be carcinogenic.

The human health risk estimated herein is expressed for both carcinogenic and noncarcinogenic toxicity. Carcinogenic risk is expressed as a probability, where excess cancer risk (ECR) corresponds to the incremental probability that an individual will contract cancer in a lifetime. The DEH criterion used in this analysis is one in a million (1.0 E-6). Noncarcinogenic toxicity is estimated by comparing the estimated dose to the dose required to trigger chronic toxicity (as a simple toxicant), and is expressed as a ratio of the dose to reference dose (RfD). A value exceeding one is considered significant.

The hazard index calculations and ECR estimates for an industrial/commercial site use are summarized in the following table. Bold-face print indicates the total calculated hazard index and ECR.

Table 2-1: Results of Human Health Risk Assessment

VOC	Highest Concentration (µg/L-v)	Hazard Index	Excess Cancer Risk
Benzene	0.4	5.67E-05	3.44E-09
Toluene	1.6	3.47E-06	noncarcinogenic
TCFM	2.8	1.64E-06	noncarcinogenic
Total Risk		6.18E-05	3.44E-09

Based on the data obtained and reviewed as part of this investigation, laboratory results, and current regulatory guidelines, it is our professional opinion that:

- With the exceptions of benzene, toluene, and TCFM, no concentrations of other VOCs were reported above laboratory detection limits in the soil vapor samples collected at and adjacent to the Property.
- Based on the total estimated hazard index and ECR from the human health risk assessment (6.18E-05 and 3.44E-09, respectively), the residual concentrations of benzene, toluene, and TCFM have a low likelihood of resulting in a significant health risk to future occupants of the proposed hotel, restaurant, and commercial buildings.

The results of the hazard index calculation, based upon Property data and the above-referenced parameters, indicate there is a low likelihood of significant health risk to building occupants for either carcinogenic or noncarcinogenic toxicity. The total estimated ECR is less than the one in a million criterion (the total ECR is 3.44E-09), and the total hazard quotient is less than one (the total hazard quotient is 6.18E-05).

2.6 AOC 1, FAOCs, and FOPCs

2.6.1 AOC 1 and FAOCs

Based on review of the previous Property investigations, one AOC and three FAOCs were identified by SCS in the PMP, and are summarized as follows.

AOC 1 includes the area of undocumented fill and burn ash that comprises the North Fill Bank (NFB) and former automotive wrecking yard. AOC 1 has historically been occupied by a former burn dump, meat packing facilities, and the former automotive wrecking yard. The soil in AOC 1 is predominantly characterized by elevated metal and PAH concentrations. Residual concentrations of petroleum hydrocarbons and VOCs have also been reported in isolated locations within AOC 1.

AOC 1 has been mitigated by the IWMB. The mitigation of AOC 1 included the excavation, reconsolidation, and capping of the burn ash materials and soil with an engineered cap. The engineered cap installed by the CIWMB over AOC 1 was reported to consist of unpaved and paved sections. The unpaved sections were reported to have been constructed with a minimum of 3 feet of clean, imported fill soil. Towards the center of the Property, the thickness of the clean, imported fill soil increases to between 4 and 6 feet. On the slope, in addition to clean, imported fill soil, the engineered cap was also revegetated with native species. The paved sections were reported to have been constructed with a minimum of 1 foot of clean, imported fill soil overlain by either: 2 inches of asphalt over 6 inches of aggregate base (asphalt pavement outside of parking lot), 6 inches of Portland cement concrete over 6 inches of aggregate base (pedestrian pathway), or 1.5 inches of asphaltic concrete over 8 inches of aggregate base (parking lot). For more specific information regarding the construction of the cap, please refer to the CIWMB's Project Completion Report.

FAOC 2 includes the former vehicle maintenance area for the historical Cleveland Associates meat packing facility. A 2,000-gallon gasoline UST was formerly located in this area. Historical groundwater data from former wells MW-1 and MW-2 indicated that a release of gasoline, likely from this UST, occurred and has impacted groundwater. Concentrations of 1,2-DCA (25.9 and 35.5 µg/L) were also reported in the groundwater in the vicinity of FAOC 2.

FAOC 2 was investigated as part of the current subsurface assessment and the results of this investigation indicate that with the exception of one TPHo concentration of 84 mg/kg, elevated concentrations of CoCs are not reported in the shallow soil likely to be disturbed by grading and construction activities. Some VOCs, ethylbenzene (810 µg/kg) and total xylenes (1,900 µg/kg), were reported in a soil sample collected from the vicinity of the capillary fringe. Groundwater from nearby monitoring well CDC4 was reported to contain a 1,2-DCA concentration of 9.2 µg/L. It is our opinion that substantial soil and groundwater impacts are no longer present in this FAOC, and that no additional assessment or mitigation is required.

FAOC 3 includes the former plating shop operated in the 1950s and 1960s. Elevated concentrations of metals (lead) have been reported in the soil in FAOC 3 and in the vicinity of FAOC 3.

FAOC 3 was investigated as part of the current subsurface assessment and the results of this investigation indicate that although elevated concentrations of some metals, including lead, are present in the shallow soil, the reported concentrations (with the exception of arsenic which is discussed in Sections 1.5 and 2.5.1.3 of this PCR) do not exceed the CHHSLs for industrial/commercial use. Groundwater in the vicinity of FAOC 3 was reported to contain toluene, ethylbenzene, and total xylenes. It is our opinion that substantial soil and groundwater impacts are not present in this FAOC, and that no additional assessment or mitigation is required.

FAOC 4 includes the former location of one 1,000-gallon gasoline UST and one 4,000-gallon diesel UST. These USTs were reported to have been removed in 1995 and to have had a release of gasoline to the soil and groundwater. Approximately 200 cubic yards of petroleum hydrocarbon-bearing soil was excavated from the UST excavation subsequent to removal.

FAOC 4 was investigated as part of the current subsurface assessment and the results of this investigation indicate that detectable concentrations of petroleum hydrocarbons are no longer present in the soil in the vicinity of the former USTs. It is our opinion that no additional assessment or mitigation is required.

2.6.2 FOPCs and RECS

Based on review of the previous Property investigations, various FOPCs were identified by SCS in the PMP. The status of each of these FOPCs is summarized in the following table.

FOPCs	Location	Description	Status
Former burn dump	NFB portion of AOC 1 APNs 559-160-03, -09, and -11	Undocumented fill and burn ash materials which have resulted in impacts to soil and groundwater. Primary CoCs are metals, particularly lead, cadmium, copper, and zinc.	Fully assessed and mitigated. Groundwater monitoring ongoing. Mitigation by CIWMB complete, CIWMB reconsolidated burn ash materials and surrounding soil in AOC 1, capped the burn ash-bearing soil with engineered clean fill, and completed the surface with either asphalt pavement within the parking lot area or native species within the habitat buffer area.
Former automotive wrecking yard	Northern portion of AOC 1 APNs 559-160-09 and -21	Impacts to soil and groundwater. Primary CoCs are metals, particularly lead, cadmium, copper, and zinc.	

FOPCs	Location	Description	Status
Historical railroad maintenance facility	AOCs 1 and 2, and Bay Marina Drive APN 559-160-21	No impacts specific to this facility known. Some metal or petroleum impacts in AOCs 1 or 2 may be co-mingled with releases from this facility.	Fully assessed and mitigated. Groundwater monitoring ongoing. Mitigation by CIWMB complete, CIWMB reconsolidated burn ash materials and surrounding soil in AOC 1, capped the burn ash-bearing soil with engineered clean fill, and completed the surface with either asphalt pavement within the parking lot area or native species within the habitat buffer area.
Former oil AST	AOC 1 APN 559-160-21	AST associated with historical railroad maintenance facility. Sampling was conducted and the results indicated no release had occurred.	
Former 20,000-gallon diesel UST/battery pit	AOC 1	UST was removed in January 1993. UST excavation was subsequently backfilled with approximately 50 to 100 used automotive batteries and soil. Potential diesel impacts to soil and groundwater from a release from UST, and lead and acid impacts to soil and/or groundwater from batteries.	No release case was opened for the UST removal. The battery pit was mitigated by SCS in July 2003. Approximately 270 cubic yards of soil and battery debris were excavated from the pit. Mitigated by CIWMB as part of AOC 1.
Former 1,000-gallon bunker fuel UST	AOC 1 559-160-03	UST was removed in April 2003, and a release to the soil of diesel- and oil-range petroleum hydrocarbons was reported.	SCS implemented the Post-tank Removal Workplan and excavated approximately 67 cubic yards of petroleum-hydrocarbon-bearing soil from the vicinity of the UST. The DEH opened a new case number, H123772-003, for this release. Mitigated by CIWMB as part of AOC 1.

FOPCs	Location	Description	Status
Transformers	AOC 1 559-160-11	Potential impacts to soil. Primary CoC is PCBs. Sampling was conducted and the results indicated no release had occurred.	No further assessment required. Mitigated by CIWMB as part of AOC 1.
Abandoned 55-gallon drums	AOC 1 559-160-11	Sampling indicated minor release to soil. Total recoverable petroleum hydrocarbons (TRPH) was primary CoC.	Mitigated by CIWMB as part of AOC 1.
Former sump and other drainage features associated with Cuyamaca Meats building	AOC 1 559-160-11	Potential impacts to soil. Sampling was conducted and the results indicated no release had occurred.	Mitigated by CIWMB as part of AOC 1.
Former boiler	AOC 1 559-160-11	Potential impacts to soil. No sampling conducted.	Mitigated by CIWMB as part of AOC 1.
Vehicle maintenance area	FAOC 2 559-160-21	Residual impacts to groundwater reported in the vicinity of this FOPC. Primary CoCs are gasoline constituents and TCE.	Soil assessed as part of current assessment. Substantial soil and groundwater impacts are no longer present, and no additional mitigation required.
Former 2,000-gallon gasoline UST	FAOC 2 559-160-21	UST was removed in May 1990. Potential gasoline impacts to soil and groundwater. Residual impacts to groundwater reported in the vicinity of this FOPC. Primary CoCs are gasoline constituents and TCE.	No release case was opened for the UST removal. Soil assessed as part of current assessment. Substantial soil and groundwater impacts are no longer present, and no additional mitigation required.
Former plating works	FAOC 3 559-117-14	Potential impacts to soil and groundwater. Primary CoCs are metals and VOCs.	Soil assessed as part of current assessment. Substantial soil and groundwater impacts are not present, and no additional mitigation required.

FOPCs	Location	Description	Status
Former 1,000-gallon gasoline and 4,000-gallon diesel USTs	FAOC 4 559-160-11	Impacts to soil and groundwater. Primary CoCs are gasoline constituents.	Approximately 200 cubic yards of petroleum-hydrocarbon-bearing soil excavated from the vicinity of the USTs. DEH opened a new case number, H01953-001, for this release. "No further action" letter issued November 1995. Soil assessed as part of current assessment. Substantial soil and groundwater impacts are no longer present, and no additional mitigation required.

3.0 FUTURE CONSTRUCTION AND LAND USES

3.1 Grading, General Excavation, and Future Construction

The proposed building footprints and parking lot (based upon plans provided by Rick Engineering) are shown in Figures 8, 9, 17, 18, and 19. The proposed future development consists of three buildings, a hotel, a restaurant, and a commercial building. With the exception of the portion of the parking lot already built by the CIWMB, no significant impacts to soil have been encountered in the proposed building and parking lot areas, and it is not anticipated that any such impacts will be encountered during grading and excavation.

A subsurface slab, located approximately 1.5 to 2 feet below grade, in the proposed location of the hotel building will likely have to be demolished before grading. This slab is located beneath approximately 1 to 1.5 feet of fill soil that will need to be removed to demolish the subsurface slab and is reported to contain elevated concentrations of lead. The reported concentrations of lead are well below the CHSSL and PRG for lead, and do not pose a problem if the soil is to be reused on-site, which is the likely scenario; however, if the soil is to be transported and disposed of off-site, then it may be classified as a regulated or hazardous waste and should be properly characterized and disposed of appropriately.

3.2 Final Property Use

Following construction, the Property use will consist of a hotel building, a restaurant, and a commercial building.

4.0 PROPERTY MITIGATION

4.1 Property Mitigation

Mitigation of the Property was achieved by limited excavation and off-Site disposal of CoC-bearing soils in the vicinity of the battery pit and 1,000-gallon bunker fuel UST, and by the reconsolidation and capping of AOC 1. Review of available Property investigation data and laboratory reports included in the Appendix indicates that additional delineation or mitigation is not required for residual impacts remaining at the Property.

4.2 Conditions for Closure

Based on the results of the assessment and mitigation activities described in this PCR, it is our professional opinion that the known or reasonably suspected releases of hazardous substances at the Property have been assessed and mitigated as necessary in general accordance with the MWP and PMP, and that the subsurface conditions at the Property do not pose a significant risk to human health and do not pose a threat to the known beneficial uses of water resources in the area. We recommend that the DEH issue a conditional “no further action” letter regarding the soil, soil vapor, and groundwater impacts at the Property. The “no further action” letter should contain the following conditions:

- **PCAR**

Elevated metal (lead) concentrations were reported in six soil samples collected from FAOC 3 and from portions of the proposed location of the hotel building. The soil samples within FAOC 3 and the vicinity of the future hotel building that were reported to have elevated lead concentrations were located at depths of 0.5 to 2 foot below grade and were observed to consist of silty sand with gravel fill that overlays approximately 3 to 4 inches of concrete. It is likely that this fill soil and the underlying concrete will require removal prior to construction of the hotel. It is also likely that the fill soil can be reused on-site since the Property is an import site, and the geotechnical properties (silty sand with gravel) of the soil should make it suitable for recompaction.

Subsequent to the demolition of the subsurface slab and relocation of the lead-bearing fill soil (or off-site disposal), a PCAR will be prepared and submitted to the DEH. The PCAR will report the end disposition of this soil, and provide any appropriate documentation (such as manifests if soil is disposed of off-site).

- **Air Monitoring**

Since residual concentrations of CoCs are present, air monitoring (for dust and VOCs) will be conducted during grading activities. The PCAR will include the results of the air monitoring during grading activities, and will document any instances during grading activities where action levels were exceeded and corrective actions (BMPs) were implemented.

- **Groundwater Monitoring**

Continued groundwater monitoring as currently required by the DEH (three additional quarters of monitoring currently required), and the preparation and submittal of quarterly groundwater monitoring reports.

- **PCMMP**

Finalization and implementation of the PCMMP which is included in the Appendix for DEH review and approval. The PCMMP is a stand-alone document which provides for the inspection and maintenance of the reconsolidated, capped, and revegetated former burn dump area in AOC 1 (historically referred to as the North Fill Bank); includes an emergency response section which discusses various scenarios under which various emergency response actions would be required; and summarizes the post-closure conditions that apply, what party is responsible for each condition, and the contact information for each party.

- **Deed Covenant**

Recording a Deed Covenant, pursuant to Civil Code § 1471, that provides environmental restrictions on future Property use. The Deed Covenant will be recorded at the County Recorder's Office to provide explicit information about the location of AOC 1 on the Property and to require additional environmental oversight in the event of any changes to Property use or redevelopment. These land use restrictions can also be reported on National City's Brownfields Redevelopment Environmental Information System website at <http://www.nationalcitybreis.org/>. A copy of the deed covenant is included in the Appendix.

TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
OF VOLATILE ORGANIC COMPOUNDS FROM GROUNDWATER MONITORING WELL INSTALLATION

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Well Number	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)	1,3,5-TMB (µg/kg)	1,2,4-TMB (µg/kg)	sec-BB (µg/kg)	n-BB (µg/kg)	n-PB (µg/kg)	IPB (µg/kg)	4-IPT (µg/kg)	CDS (µg/kg)	MC (µg/kg)	N (µg/kg)	Other VOCs
CDC3-5	CDC3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC3-10		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC3-15		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	ND
CDC3-20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	ND
CDC3-22		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	ND
CDC3-24		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	ND
CDC3-26		<5	<5	<5	<5	<5	<5	1,500	<5	<5	<5	<5	7	5	<5	ND
CDC3-28		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5	ND
CDC4-5	CDC4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC4-10		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC4-15		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC4-20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC4-22		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC4-24		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC4-26		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC4-28		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC5-5	CDC5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	ND
CDC5-10		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	ND
CDC5-15		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5	ND
CDC5-20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	ND
CDC5-22		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC5-24		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC5-26		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ND
CDC5-28		<25	4,400*	12,000	68,000	20,000	69,000	1,800*	<25	10,000	2,900*	1,400*	<25	<25	11,000	ND
CDC5-30		<25	100,000	89,000	470,000	93,000	300,000	<25	<25	53,000	14,000	6,100*	<25	<25	36,000	ND
CDC5-32		<25	2,500	2,000	11,700	2,400	8,000	110	490	860	270	100	<25	<25	740	ND
CDC5-34		<25	3,900	4,500	28,100	7,100	24,000	180	760	3,500	330	150	<25	<25	3,200	ND

Notes:
B = benzene
X = total xylenes
sec-BB = sec-butylbenzene
IPB = isopropylbenzene
MC = methylene chloride
Samples collected by SCS Engineers on June 13 and June 14, 2006.
Samples analyzed for VOCs in general accordance with EPA Method 8260B. Results are reported in micrograms per kilogram (µg/kg).
ND and < indicates the reported concentration was not above the laboratory detection limit for the respective analytical method.
- indicates sample was not analyzed for respective analyte.
Bold print indicates result above laboratory detection limits.
* indicates the reported concentration is an estimated value between the method detection limit and the practical quantitation limit.

T = toluene
1,3,5-TMB = 1,3,5-trimethylbenzene
n-BB = n-butylbenzene
4-IPT = 4-isopropyltoluene
N = naphthalene

E = ethylbenzene
1,2,4-TMB = 1,2,4-trimethylbenzene
n-PB = n-propylbenzene
CDS - carbon disulfide
VOCs = volatile organic compounds

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS
OF METALS
FROM GROUNDWATER MONITORING WELL INSTALLATION

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Well Number	Cr (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Zn (mg/kg)	Sb (mg/kg)	As (mg/kg)	Ba (mg/kg)	Be (mg/kg)	Cd (mg/kg)	Co (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Ag (mg/kg)	Tl (mg/kg)	V (mg/kg)
CDC3-5	CDC3	20.5	14.3	2.93	<0.03	39.7	<0.5	2.01	67.8	<0.015	<0.5	17.3	<2	7.98	<0.5	<1	<0.5	58.6
CDC3-10		15.7	9.04	1.25	<0.03	29.4	<0.5	1.01	81.1	<0.015	<0.5	6	<2	4.72	<0.5	<1	<0.5	50.6
CDC3-15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC3-20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC3-22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC3-24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC3-26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC3-28		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC4-5	CDC4	19.7	11.8	2.91	<0.03	39.3	<0.5	1.33	71.3	<0.015	<0.5	4.93	<2	5.85	<0.5	<1	<0.5	53.8
CDC4-10		10.8	5.52	1.14	<0.03	16.6	<0.5	0.726	30	<0.015	<0.5	2.45	<2	3.43	<0.5	<1	<0.5	34.5
CDC4-15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC4-20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC4-22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC4-24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC4-26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC4-28		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-5	CDC5	19.4	11.7	1.91	<0.03	37.6	<0.5	1.3	76.1	<0.015	<0.5	9.09	<2	6.47	<0.5	<1	<0.5	62.7
CDC5-10		22.1	16.3	2.34	<0.03	43.1	<0.5	1.75	144	<0.015	<0.5	9.34	<2	8.43	<0.5	<1	<0.5	63.6
CDC5-15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-28		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-32		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CDC5-34		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHHSL		100,000/37	38,000	3,500	180	100,000	380	0.24	63,000	1,700	7.5	3,200	4,800	16,000	4,800	4,800	63	6,700

Notes:

Cr = chromium
Pb = lead
As = arsenic
Cd = cadmium
Ni = nickel
Tl = thallium

Cu = copper
Zn = zinc
Ba = barium
Co = cobalt
Se = selenium
V = vanadium

Hg = mercury
Sb = antimony
Be = beryllium
Mo= molybdenum
Ag = silver

Samples collected by SCS Engineers on 6/13/06 and 6/14/06.
Samples analyzed for Title 22 in general accordance with EPA Methods 6010B/7471A. Results are reported in milligrams per kilogram (mg/kg).
ND and < indicate the reported concentration was not above the laboratory detection limit for the respective analytical method.
- indicates sample was not analyzed for respective analyte.
Bold print indicates result above laboratory detection limits.

TABLE 3 (PAGE 1 OF 2)
SOIL SAMPLE ANALYTICAL RESULTS
OF VOLATILE ORGANIC COMPOUNDS AND SELECTED METALS
FROM SOIL BORINGS IN LOCATION OF PROPOSED HOTEL BUILDING

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Boring Number	VOCs	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Zinc (mg/kg)
EBS5-0.5	EBS5	ND	21.0	36.4	157	<0.20	192
EBS5-5		ND	12.7	7.83	3.10	<0.20	28.9
EBS5-10		ND	-	-	-	-	-
EBS5-15		ND	-	-	-	-	-
EBS5-19.5		ND	-	-	-	-	-
EBS6-0.5	EBS6	ND	3.58	3.73	3.06	<0.20	17.0
EBS6-5		ND	18.9	12.0	3.78	<0.20	42.4
EBS6-10		ND	-	-	-	-	-
EBS6-15		ND	-	-	-	-	-
EBS6-19.5		ND	-	-	-	-	-
EBS7-0.5	EBS7	ND	3.08	3.19	3.24	<0.20	19.8
EBS7a-5	EBS7a	ND	16.3	8.42	3.09	<0.20	30.8
EBS7a-10		ND	-	-	-	-	-
EBS7a-15		ND	-	-	-	-	-
EBS7a-19.5		ND	-	-	-	-	-
EBS8-0.5	EBS8	ND	13.5	8.56	12.7	<0.20	28.7
EBS8-5		ND	14.0	8.12	2.35	<0.20	28.5
EBS8-10		ND	-	-	-	-	-
EBS8-15		ND	-	-	-	-	-
EBS8-19.5		ND	-	-	-	-	-
EBS9-0.5	EBS9	ND	19.2	9.98	12.4	<0.20	58.8
EBS9a-5	EBS9a	ND	19.1	9.64	2.65	<0.20	35.8
EBS9a-10		ND	-	-	-	-	-
EBS9a-15		ND	-	-	-	-	-
EBS9a-19.5		ND	-	-	-	-	-

TABLE 3 (PAGE 2 OF 2)
SOIL SAMPLE ANALYTICAL RESULTS
OF VOLATILE ORGANIC COMPOUNDS AND SELECTED METALS
FROM SOIL BORINGS IN LOCATION OF PROPOSED HOTEL BUILDING

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Boring Number	VOCs	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Zinc (mg/kg)
EBS10-0.5	EBS10	ND	48.5	16.9	41.6	0.22	92.3
EBS10-5		ND	16.5	9.62	3.25	<0.20	30.4
EBS10-10		ND	-	-	-	-	-
EBS10-15		ND	-	-	-	-	-
EBS10-19.5		ND	-	-	-	-	-
CHSSL		NA	100,000/37	38,000	3,500	180	100,000

Notes:

VOCs = volatile organic compounds

Samples collected by SCS Engineers on on July 28, 2004.

Samples analyzed for analyzed for VOCs in general accordance with EPA Method 8021B, and for selected metals in general accordance with EPA Method 6010B and 7471A. Results for metals are reported in milligrams per kilogram (mg/kg).

ND and < indicate the reported concentration was not above the laboratory detection limit for the respective analytical method.

- indicates sample was not analyzed for respective analyte.

Bold print indicates result above laboratory detection limits.

TABLE 4 (PAGE 1 OF 7)
SOIL SAMPLE ANALYTICAL RESULTS
OF PETROLEUM HYDROCARBONS, VOLATILE ORGANIC COMPOUNDS, AND POLYNUCLEAR AROMATIC HYDROCARBONS
FROM TRENCHES AND POTHOLE

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)	TCE (µg/kg)	Other VOCs	A (mg/kg)	AN (mg/kg)	AC (mg/kg)	BaA (mg/kg)	BaP (mg/kg)	BbF (mg/kg)	BgP (mg/kg)	BkF (mg/kg)	C (mg/kg)	DBA (mg/kg)	FA (mg/kg)	F (mg/kg)	IP (mg/kg)	N (mg/kg)	PA (mg/kg)	P (mg/kg)
T1-A-1	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-A-4	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-A-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-B-1	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-B-4	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-B-8	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-C-1	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-C-4	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-C-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-D-1	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-D-4	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-D-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-E-1	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-E-4	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T1-E-8	<0.5	<10	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-A-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-A-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-A-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-B-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-B-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-B-8	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-C-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-C-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-C-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-D-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-D-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-D-8	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-E-2	-	-	-	<5	<5	<5	<10	10	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-E-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-E-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 4 (PAGE 2 OF 7)
SOIL SAMPLE ANALYTICAL RESULTS
OF PETROLEUM HYDROCARBONS, VOLATILE ORGANIC COMPOUNDS, AND POLYNUCLEAR AROMATIC HYDROCARBONS
FROM TRENCHES AND POTHOLE

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)	TCE (µg/kg)	Other VOCs	A (mg/kg)	AN (mg/kg)	AC (mg/kg)	BaA (mg/kg)	BaP (mg/kg)	BbF (mg/kg)	BgP (mg/kg)	BkF (mg/kg)	C (mg/kg)	DBA (mg/kg)	FA (mg/kg)	F (mg/kg)	IP (mg/kg)	N (mg/kg)	PA (mg/kg)	P (mg/kg)
T2-F-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-F-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-F-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-G-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-G-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-G-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-H-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-H-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T2-H-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-A-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-A-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-A-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-B-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-B-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-B-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-C-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-C-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-C-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-D-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-D-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-D-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-E-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-E-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-E-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-F-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-F-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T3-F-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 4 (PAGE 3 OF 7)
SOIL SAMPLE ANALYTICAL RESULTS
OF PETROLEUM HYDROCARBONS, VOLATILE ORGANIC COMPOUNDS, AND POLYNUCLEAR AROMATIC HYDROCARBONS
FROM TRENCHES AND POTHOLE

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)	TCE (µg/kg)	Other VOCs	A (mg/kg)	AN (mg/kg)	AC (mg/kg)	BaA (mg/kg)	BaP (mg/kg)	BbF (mg/kg)	BgP (mg/kg)	BkF (mg/kg)	C (mg/kg)	DBA (mg/kg)	FA (mg/kg)	F (mg/kg)	IP (mg/kg)	N (mg/kg)	PA (mg/kg)	P (mg/kg)
T4-A-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-A-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-A-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-B-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-B-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-B-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-C-2	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-C-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-C-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-D-2	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-D-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T4-D-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-A-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-A-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-A-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-B-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-B-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-B-8	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-C-1	<0.5	<10	<50	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-C-4	<0.5	<10	<50	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-C-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-D-1	<0.5	<10	<50	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-D-4	<0.5	<10	<50	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-D-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-E-1	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-E-4	<0.5	<10	<50	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5-E-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 4 (PAGE 4 OF 7)
SOIL SAMPLE ANALYTICAL RESULTS
OF PETROLEUM HYDROCARBONS, VOLATILE ORGANIC COMPOUNDS, AND POLYNUCLEAR AROMATIC HYDROCARBONS
FROM TRENCHES AND POTHOLE

2501 and 2510 Cleveland Avenue, National City, California

[illegible]

TABLE 4 (PAGE 7 OF 7)
SOIL SAMPLE ANALYTICAL RESULTS
OF PETROLEUM HYDROCARBONS, VOLATILE ORGANIC COMPOUNDS, AND POLYNUCLEAR AROMATIC HYDROCARBONS
FROM TRENCHES AND POTHOLES

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	TPHg (mg/kg)	TPHd (mg/kg)	TPHo (mg/kg)	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)	TCE (µg/kg)	Other VOCs	A (mg/kg)	AN (mg/kg)	AC (mg/kg)	BaA (mg/kg)	BaP (mg/kg)	BbF (mg/kg)	BgP (mg/kg)	BkF (mg/kg)	C (mg/kg)	DBA (mg/kg)	FA (mg/kg)	F (mg/kg)	IP (mg/kg)	N (mg/kg)	PA (mg/kg)	P (mg/kg)
P21-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P21-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P22-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P22-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P23-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P23-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P24-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P24-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P25-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P25-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P26-1	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P26-4	-	-	-	<5	<5	<5	<10	<5	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
TPHg = total petroleum hydrocarbons as gasoline
B = benzene
X = total xylenes
A = acenaphthene
BaA = benz(a)anthracene
BgP = benzo(ghi)perylene
DBA = dibenzo(a,h.)anthracene
IP = indeno(1,2,3-cd)pyrene
P = pyrene

TPHd = total petroleum hydrocarbons as diesel
T = toluene
TCE = trichloroethene
AN = acenaphthylene
BaP = benzo(a)pyrene
BkF = benzo(k)fluoranthene
FA = fluoranthene
N = naphthalene

TPHo = total petroleum hydrocarbons as oil
E = ethylbenzene
VOCs = volatile organic compounds
AC = anthracene
BbF = benzo(b)fluoranthene
C = chrysene
F = fluorene
PA = phenanthrene

Samples collected by SCS Engineers on August 12, 13, 16, and 17, 2004.

Samples analyzed for TPH in general accordance with modified EPA Method 8015, for VOCs in general accordance with EPA Method 8021B, and for polynuclear aromatic hydrocarbons (PAHs) in general accordance with EPA Method 8310. Results for TPH and PAHs reported in milligrams per kilogram (mg/kg), and results for VOCs reported in micrograms per kilogram (µg/kg).

ND and < indicate the reported concentration was not above the laboratory detection limit for the respective analytical method.

- indicates sample was not analyzed for respective analyte.

Bold print indicates result above laboratory detection limits.

* Sample P1-2-4 was collected from a clump of a viscous tar-like substance mixed with soil.

2501 and 2510 Cleveland Avenue, National City, California

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2501 and 2510 Cleveland Avenue, National City, California

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2501 and 2510 Cleveland Avenue, National City, California

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2501 and 2510 Cleveland Avenue, National City, California

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2501 and 2510 Cleveland Avenue, National City, California

[illegible]

TABLE 5 (PAGE 7 OF 7)
SOIL SAMPLE ANALYTICAL RESULTS
OF SELECTED METALS AND POLYCHLORINATED BIPHENYLS
FROM TRENCHES AND POTHOLES

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Cr (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Zn (mg/kg)	Sb (mg/kg)	As (mg/kg)	Ba (mg/kg)	Be (mg/kg)	Cd (mg/kg)	Co (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Ag (mg/kg)	Tl (mg/kg)	V (mg/kg)	PCBs (µg/kg)
P21-1	9.17	5.21	2.00	<0.20	13.6	-	-	-	-	-	-	-	-	-	-	-	-	-
P21-4	16.3	8.92	2.49	<0.20	35.0	-	-	-	-	-	-	-	-	-	-	-	-	-
P22-1	22.3	14.0	3.26	<0.20	143	-	-	-	-	-	-	-	-	-	-	-	-	-
P22-4	9.27	11.2	20.0/ 20.6	<0.20	58.0	<0.50	4.02	105	<0.50	<0.50	8.92	<0.50	6.77	<0.50	<0.50	<0.50	28.8	-
P23-1	13.7	25.4	38.2	<0.20	148	1.02	<0.25	75.8	<0.50	<0.50	7.64	<0.50	9.88	<0.50	<0.50	<0.50	38.7	-
P23-4	18.0	11.1	2.55	<0.20	38.7	-	-	-	-	-	-	-	-	-	-	-	-	-
P24-1	15.7	8.42	3.14	<0.20	18.2	-	-	-	-	-	-	-	-	-	-	-	-	-
P24-4	17.3	10.8	2.32	<0.20	36.8	-	-	-	-	-	-	-	-	-	-	-	-	-
P25-1	24.2	37.8	138	<0.20	522/521	2.43	1.45	185	<0.50	0.91	9.46	<0.50	15.7	<0.50	<0.50	<0.50	54.6	-
P25-4	13.2	8.13	1.98	<0.20	29.4	-	-	-	-	-	-	-	-	-	-	-	-	-
P26-1	14.3	7.36	2.62	<0.20	24.5	-	-	-	-	-	-	-	-	-	-	-	-	-
P26-4	26.4	13.0	3.27	<0.20	46.2	0.53	1.10	356	<0.50	<0.50	12.1	<0.50	15.4	<0.50	<0.50	<0.50	86.8	-
CHHSL	100,000/ 37	38,000	3,500	180	100,000	380	0.24	63,000	1,700	7.5	3,200	4,800	16,000	4,800	4,800	63	6,700	300

Notes:

Cr = chromium

Hg = mercury

As = arsenic

Cd = cadmium

Ni = nickel

Tl = thallium

PCBs = polychlorinated biphenyls

Samples collected by SCS Engineers on August 12, 13, 16, and 17, 2004.

Samples analyzed for metals in general accordance with EPA Method 6010B and 7471A, and for PCBs in general accordance with EPA Method 8082.

< indicates the reported concentration was not above the laboratory detection limit for the respective analyte.

- indicates sample was not analyzed for respective analyte.

Results reported in units of milligrams per kilogram (mg/kg) for metals and micrograms per kilogram (µg/kg) for PCBs.

* Sample P1-2-4 was collected from a clump of a viscous tar-like substance mixed with soil.

Cu = copper

Zn = zinc

Ba = barium

Co = cobalt

Se = selenium

V = vanadium

CHHSL = California Human Health Screening Level

Pb = lead

Sb = antimony

Be = beryllium

Mo= molybdenum

Ag = silver

Zn = zinc

TABLE 6
SOIL SAMPLE ANALYTICAL RESULTS OF PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS
FROM REMOVAL OF 1,000-GALLON UNDERGROUND STORAGE TANK

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Location	Depth (in feet below grade)	Analytes (results in milligrams per kilogram)				Analytes (results in micrograms per kilogram)								
			TPHg	TPHd	TPHo	Pb	B	T	E	X	MTBE	ETBE	TAME	DIPE	TBA
T1-E-7.5	UST excavation, beneath east end of former tank location	7.5	<10	850	1,300	-	<5	<5	<5	<15	<5	<5	<5	<5	<25
T1-W-6	UST excavation, beneath west end of former tank location	6	<10	<10	<10	-	-	-	-	-	-	-	-	-	-
T1-S-6.5	UST excavation, south wall	6.5	<10	<10	<10	-	-	-	-	-	-	-	-	-	-
T1-N-7.5	UST excavation, north wall	7.5	<10	<10	<10	-	-	-	-	-	-	-	-	-	-
T1-E-8	UST excavation, east wall	8	<10	<10	<10	-	-	-	-	-	-	-	-	-	-
T1-B1-9.5	UST excavation, bottom	9.5	13	2,000	1,200	-	<5	8.8	10	53	<5	<5	<5	<5	<25
T1-W-5	UST excavation, west wall	5	<10	<10	<10	-	-	-	-	-	-	-	-	-	-
T1-B2-6	UST excavation, bottom	6	<10	13	10	-	-	-	-	-	-	-	-	-	-
T1-B3-15.5	UST excavation, bottom	15.5	<10	500	550	-	-	-	-	-	-	-	-	-	-
T1-B4-11	UST excavation, bottom	11	<10	910	340	-	-	-	-	-	-	-	-	-	-
SP1-1-3.5	Stockpile SP1	3.5	<0.5	1,360	442	15.7	<2.00	<2.00	<2.00	<6.00	<5.00	<5.00	<5.00	<5.00	<20.0
SP1-2-2		2	<0.5	2,300	936	20.2	<2.00	<2.00	<2.00	<6.00	<5.00	<5.00	<5.00	<5.00	<20.0
SP1-3-2		2	17	8,060	2,540	18.1	<10	82	57	938	<25	<25	<25	<25	<100
SP1-4-1.5		1.5	<0.5	60	<50	7.26	<2.00	<2.00	<2.00	<6.00	<5.00	<5.00	<5.00	<5.00	<20.0
SP2-1-2	Stockpile SP2	2	<0.5	1,030	904	1.49	<2.00	<2.00	<2.00	<6.00	<5.00	<5.00	<5.00	<5.00	<20.0
SP2-2-4		4	<0.5	410	416	7.58	<2.00	<2.00	<2.00	<6.00	<5.00	<5.00	<5.00	<5.00	<20.0
SP2-3-3		3	<0.5	2,150	1,250	55.0	<2.00	<2.00	<2.00	<6.00	<5.00	<5.00	<5.00	<5.00	<20.0
SP2-4-2.5		2.5	<0.5	1,940	2,020	3.37	<2.00	<2.00	<2.00	<6.00	<5.00	<5.00	<5.00	<5.00	<20.0

Notes:
TPHg = total petroleum hydrocarbons as gasoline
Pb = lead
E = ethylbenzene
ETBE = ethyl tertiary butyl ether
TBA = tertiary butyl alcohol

TPHd = total petroleum hydrocarbons as diesel
B = benzene
X = total xylenes
TAME = tertiary amyl methyl ether

TPHo = total petroleum hydrocarbons as oil range
T = toluene
MTBE = methyl tertiary butyl ether
DIPE = di-isopropyl ether

Samples collected by SCS Engineers on April 4 and 10, 2003, during the removal of one underground storage tank (UST) and during stockpile sampling, respectively.

Soil samples analyzed for TPH in general accordance with modified EPA Method 8015, for BTEX and fuel oxygenates in general accordance with EPA Method 8260B, and for Title 22 metals in general accordance with EPA Method 6010B/7471A.

< indicates the reported concentration was not above the laboratory detection limit for the relevant analytical method.

- indicates sample was not analyzed for respective analyte.

TABLE 7 (Page 1 of 2)
SOIL AND GROUNDWATER SAMPLE ANALYTICAL RESULTS OF
PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS
2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Location	Depth (in feet below grade)	Analytes (results in milligrams per kilogram)			Analytes (results in micrograms per kilogram)								
			TPHg	TPHd	TPHo	B	T	E	X	MTBE	ETBE	TAME	DIPE	TBA
EBS1-5	North of UST excavation	5	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS1-10		10	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS1-15		15	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS1-20		20	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS1-25		25	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS1-27		27	-	-	-	-	-	-	-	-	-	-	-	-
EBS1-29		29	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS1-31	North of UST excavation	31	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS1-W*		NA	<500	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<1	<1	<1	<5
EBS2-5	Southeast of UST excavation	5	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS2-10		10	<10	36	280	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS2-15		15	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS2-20		20	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS2-25		25	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS2-30		30	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS2-32		32	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS2-W*		NA	<500	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<1	<1	<1	<5
EBS3-5	North of former 2,000-gallon UST location	5	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS3-10		10	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS3-15		15	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS3-20		20	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS3-25		25	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS3-30		30	86	38	<10	<100	<100	2,000	6,500	<100	<100	<100	<100	<500
EBS3-36		36	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25

TABLE 7 (Page 2 of 2)
SOIL AND GROUNDWATER SAMPLE ANALYTICAL RESULTS OF
PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Location	Depth (in feet below grade)	Analytes (results in milligrams per kilogram)			Analytes (results in micrograms per kilogram)								
			TPHg	TPHd	TPHo	B	T	E	X	MTBE	ETBE	TAME	DIPE	TBA
EBS4-5	South of former 2,000-gallon UST location	5	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS4-10		10	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS4-15		15	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS4-20		20	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS4-25		25	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS4-30		30	75	35	<10	<5	<5	810	1,900	<5	<5	<5	<5	<25
EBS4-35		35	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS4-40		40	<10	<10	<10	<5	<5	<5	<15	<5	<5	<5	<5	<25
EBS4-W*		NA	<500	<500	<500	<0.5	<0.5	19	74	<1	<1	<1	<1	<5

Notes:
TPHg = total petroleum hydrocarbons as gasoline TPHd = total petroleum hydrocarbons as diesel TPHo = total petroleum hydrocarbons as oil range
Pb = lead B = benzene T = toluene
E = ethylbenzene X = total xylenes MTBE = methyl tertiary butyl ether
ETBE = ethyl tertiary butyl ether TAME = tertiary amyl methyl ether DIPE = di-isopropyl ether
TBA = tertiary butyl alcohol

Samples collected by SCS Engineers on April 4 and 10, 2003, during the removal of one underground storage tank (UST) and during stockpile sampling; and on December 16, 2003, during advancement of soil borings in the vicinity of two former USTs. Groundwater and soil samples analyzed for TPH in general accordance with modified EPA Method 8015, and for BTEX and fuel oxygenates in general accordance with EPA Method 8260B.

< indicates the reported concentration was not above the laboratory detection limit for the relevant analytical method.
- indicates sample was not analyzed for respective analyte.
* indicates groundwater sample; these results are reported in micrograms per liter.

TABLE 8
(1 of 3)
SOIL SAMPLE ANALYTICAL RESULTS OF TITLE 22 METALS AND PH
FROM EXCAVATION OF FORMER “BATTERY PIT”

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Location	Depth (Feet below grade)	Analytes (total metal results in milligrams per kilogram [mg/kg], and WET and TCLP results reported in milligrams per liter [mg/L])																	pH
			Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn	
SW1-3	Excavation sidewalls	3	2.33	4.07	86.6	<0.50	2.58	43.4	3.89	275	259	<0.20	25.0	15.8	<0.50	1.59	<0.50	34.4	607	4.61
SW1-7		7	<0.50	0.94	181	0.91	238	10.5	13.9	195	176	<0.20	<0.50	242	<0.50	0.72	<0.50	18.7	5,180	6.31
SW2-2		2	1.43	1.71	59.4	<0.50	2.48	24.8	6.01	222	261	0.29	<0.50	38.0	<0.50	<0.50	<0.50	29.5	786	8.27
SW2-5		5	<0.50	9.62	109	<0.50	0.61	7.71	4.90	8.08	6.50	<0.20	<0.50	6.11	<0.50	<0.50	<0.50	16.6	42.4	8.48
SW3-4		4	2.60	4.20	142	<0.50	11.9	18.2	5.64	520	359	<0.20	0.88	69.1	<0.50	3.49	<0.50	26.5	3,660	7.84
SW4-3		3	19.9	3.88	162	<0.50	64.1	81.0	6.41	1,250	985	1.42	0.92	66.7	<0.50	0.95	<0.50	29.6	3,330	7.38
SW4-7		7	<0.50	0.55	45.1	<0.50	<0.50	6.49	4.53	6.09	17.1	<0.20	<0.50	5.12	<0.50	<0.50	<0.50	20.4	24.7	8.31
SW5-3		3	12.1	3.79	218	<0.50	6.42	28.4	6.68	350	1,110	0.88	0.76	50.0	<0.50	1.28	<0.50	28.6	2,890	7.64
SW5-6		6	4.30	0.89	64.9	<0.50	1.00	8.54	4.38	77.0	438	<0.20	<0.50	11.3	<0.50	<0.50	<0.50	20.3	443	8.47
SW6-3		3	2.46	0.77	62.2	<0.50	<0.50	6.82	3.78	80.1	431	<0.20	<0.50	8.69	<0.50	<0.50	<0.50	17.2	188	8.42
SW6-6		6	55.5	3.26	72.2	<0.50	<0.50	8.87	4.39	60.0	6,560	<0.20	<0.50	8.83	<0.50	<0.50	<0.50	23.3	201	8.24
SW7-2		2	1.34	2.87	96.5	<0.50	2.32	13.4	6.37	83.0	222	<0.20	<0.50	15.5	<0.50	<0.50	<0.50	29.9	352	8.22
SW7-5		5	<0.50	1.64	56.2	<0.50	1.38	5.18	3.43	29.9	286	<0.20	<0.50	6.71	<0.50	<0.50	<0.50	20.5	246	8.20
SB1-7	Excavation bottom	7	26.2	8.72	117	<0.50	1.34	17.7	7.68	262	321	<0.20	0.75	32.8	<0.50	0.60	<0.50	23.6	781	7.63
SB2-5		5	<0.50	3.24	29.1	<0.50	<0.50	10.3	6.79	8.41	36.7	<0.20	<0.50	7.84	<0.50	<0.50	<0.50	30.5	37.4	8.03
SB3-6		6	2.21	1.79	85.7	<0.50	1.41	11.9	4.64	87.7	375	<0.20	<0.50	13.9	<0.50	<0.50	<0.50	21.9	424	8.38
SP3-1-2	Stockpile SP3	2	<0.50	2.97	173	<0.50	7.67	24.1	6.02	2,050 (23.3)	1,020 (57.9) [14.9]	0.32	0.79	29.2	<0.50	<0.50	<0.50	28.4	1,540	7.23
SP3-2-5		5	<0.50	3.11	197	<0.50	5.72	29.2	8.57	373 (23.2)	965 (73.4) [7.74]	0.49	1.08	38.0	0.55	0.55	<0.50	29.3	1,470	7.45
SP3-3-3		3	<0.50	2.37	154	<0.50	3.21	21.3	6.06	515 (10.2)	1,050 (64.0) [7.19]	<0.20	0.76	37.7	<0.50	1.11	<0.50	38.2	858	7.74
SP3-4-3		3	<0.50	3.09	181	<0.50	5.92	25.9	5.98	1,580 (20.6)	854 (53.7) [8.19]	0.67	0.61	30.9	<0.50	<0.50	<0.50	30.9	1,540	7.48

TABLE 8
(2 of 3)
SOIL SAMPLE ANALYTICAL RESULTS OF TITLE 22 METALS AND PH
FROM EXCAVATION OF FORMER “BATTERY PIT”

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Location	Depth (Feet below grade)	Analytes (total metal results in milligrams per kilogram [mg/kg], and WET and TCLP results reported in milligrams per liter [mg/L])																	pH
			Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn	
SP3-5-2	Stockpile SP3	2	<0.50	4.14	191	<0.50	9.33	22.5	7.07	1,090 (23.1)	1,060 (85.4) [13.5]	0.53	1.11	39.8	<0.50	1.29	<0.50	31.3	1,910	7.46
SP3-6-2.5		2.5	2.75	3.16	152	<0.50	5.39	19.7	5.56	244	1,130 (123) [10.6]	0.57	0.63	27.1	<0.50	<0.50	<0.50	30.4	1,480	7.56
SP3-7-1.5		1.5	45.7	6.02	204	<0.50	6.36	19.5	7.10	319 (29.3)	1,900 (103) [5.54]	0.52	1.38	37.9	<0.50	<0.50	<0.50	30.1	1,470	7.53
SP3-8-1		1	<0.50	2.26	174	<0.50	4.31	18.4	6.70	252 (19.2)	820 (180) [21.6]	0.52	0.54	30.4	<0.50	<0.50	<0.50	29.5	1,200	7.61
SP3-9-1		1	8.55	8.42	309	<0.50	4.42	22.4	7.59	436 (222)	988 (114) [7.85]	0.59	1.56	74.0	<0.50	1.11	<0.50	25.8	1,600	7.81
SP3-10-1		1	46.3	23.3	367	<0.50	9.76	103 (<0.50) [<0.50]	10.1	905 (52.6)	3,790 (229) [20.4]	0.80	27.5	86.6	6.01	3.16	<0.50	65.1	16,500 (315)	7.68
SP3-11-1		1	22.1	8.88	267	<0.50	5.94	36.3	8.66	500 (27.5)	10,100 (89.6) [5.67]	0.53	2.01	56.0	<0.50	3.15	<0.50	101	2,000	7.68
PRG	NA	NA	410	1.6	67,000	1,900	450	450	1,900	41,000	750	310	5,100	20,000	5,100	5,100	67	7,200	100,000	NA
TTLC			500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000	NA
STLC			15	5	100	0.75	1	5	80	25	5	0.20	350	20	1	5	7	24	250	NA
TCLP			NA	5	100	NA	1	5	NA	NA	5	0.20	NA	NA	1	5	NA	NA	NA	NA
Range ¹			0.22 to 1.01	2.8 to 10.9	337 to 998	0.30 to 1.56	0.1 to 0.5	19 to 90	3.6 to 14.0	10 to 43	9 to 31	0.02 to 0.11	0.39 to 1.85	7 to 32	0.09 to 0.56	0.1 to 0.5	0.1 to 0.4	36 to 136	31 to 98	NA

TABLE 8
(3 of 3)
SOIL SAMPLE ANALYTICAL RESULTS OF TITLE 22 METALS AND PH
FROM EXCAVATION OF FORMER “BATTERY PIT”

2501 and 2510 Cleveland Avenue, National City, California

Notes:

Sb = antimony	As = arsenic	Ba = barium	Be = beryllium	Cd = cadmium
Cr = chromium	Co = cobalt	Cu = copper	Pb= lead	Hg = mercury
Mo = molybdenum	Ni = nickel	Se = selenium	Ag = silver	Tl = thallium
V = vanadium	Zn = zinc	WET = Waste Extraction Test	TCLP = Toxicity Characteristic Leaching Procedure	PRG = Preliminary Remediation Goal, industrial

TTLC = total threshold limit concentration STLC = soluble threshold limit concentration

Soil samples collected by SCS Engineers (SCS) on July 1 and July 7, 2003.

Soil samples analyzed for metals in general accordance with EPA Method 6010B/7470A, and for pH in general accordance with EPA Method 150.1. Selected samples also analyzed for soluble metals in general accordance with the WET and TCLP.

< indicates the reported concentration was not above the laboratory detection limit for the relevant analytical method.

(23.3) indicates WET result.

[20.4] indicates TCLP result.

Bold print indicates result above laboratory detection limits.

Italicized print indicates result exceeding respective PRG and/or TTLC.

1. Average range of metals in western United States from *Element Concentrations in Soils and Other Surficial Materials of the Conterminious United States*, J. G. Boerngen and H. T. Shacklette, U.S. Survey, Professional Paper 127, 1984.

TABLE 9 (page 3 of 3)
GROUNDWATER AND SURFACE WATER SAMPLE ANALYTICAL RESULTS
OF ORGANIC COMPOUNDS

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Date	Location	Analytes (results reported in micrograms per liter [µg/L])																												
			TPHg	TPHd	TPHo	TRPH	B	T	E	X	MTBE	PCE	TCE	1,2-DCA	sec-BB	C	BDCM	n-PB	1,2,3-TCB	1,2,4-TCB	1,3,5-TMB	1,2,4-TMB	N	MC	IPB	A	2-B	n-BB	Other VOCs	PAHs	
MW2	7/8/99	Cleveland/ Cuyumaca Properties	68	ND	-	-	3.6	22.7	3.1	17.8	ND	ND	ND	25.9	ND	ND	ND	2.0	ND	ND	ND	2.6	2.9	ND	ND	ND	ND	ND	ND	ND	-
	12/2/99		ND	ND	-	-	ND	ND	ND	ND	ND	ND	ND	35.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.1	ND	ND	ND	ND	ND	ND	
	1/02		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	6/03		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW3	7/8/99	Cleveland/ Cuyumaca Properties	2,860/ 2,970	ND	-	-	ND	ND	48.9	ND	ND	ND	ND	ND	ND	ND	160	ND	ND	27.1	595	141	ND	61.4	ND	ND	ND	ND	ND	ND	-
	12/2/99		1,540/ 1,310	ND	-	-	4.4	28.4	19.2	24.9	ND	ND	9.3	ND	5.9	ND	ND	52.3	ND	ND	7.9	111	38.1	ND	18.2	ND	ND	ND	ND	ND	
	1/2/02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/24/03 ² (MW6)		<50/<50	<500	<500	-	<1/<1	<1/<1	<1/<1	<3/<3	<2/<2	<1/<1	1.1/1.2	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	<5/<5	<1/<1	<5/<5	<5/<5	<1/<1	ND/ND	ND/ND	
Trip Blank	6/24/03	Trip and Field Blanks	<50	-	-	-	<1	<1	<1	<3	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<5	<1	ND	-	
	6/23/06		-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	ND	-	
Field Blank	6/25/03 (MW5)		<50	<500	<500	-	<1	<1	<1	<3	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<5	<1	ND	-	
	6/23/06 (JWM7)		-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	ND	-	
MCLs			NA	NA	NA	NA	1	150	300	1,750	13	5	5	0.5	NA	NA	NA	NA	NA	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:
TPHg = total petroleum hydrocarbons as gasoline
TRPH = total recoverable petroleum hydrocarbons
E = ethylbenzene
PCE = tetrachloroethene
sec-BB = sec-butylbenzene
n-PB = n-propylbenzene
1,3,5-TMB = 1,3,5-trimethylbenzene
MC = methylene chloride
2-B = 2-butanone
PAHs = polynuclear aromatic hydrocarbons

Groundwater and surface water samples collected by SCS Engineers (SCS) on June 22 and 23, 2006.
Groundwater and surface water samples analyzed for VOCs (including oxygenates) in general accordance with EPA Method 8260B.
ND and < indicate the reported concentration was not above the laboratory detection limit for the respective analytical method.
- indicates sample was not analyzed for respective analyte.
NS indicates not sampled.
NA indicates not applicable.
1. Naphthalene.
2. Blind duplicate analysis.
Bold print indicates result above laboratory detection limits.
Italicized print indicates result exceeds respective MCL.
2,860/2,970 indicates the results of original and duplicate analysis

TPHd = total petroleum hydrocarbons as diesel
B = benzene
X = total xylenes
TCE = trichloroethene
C = chloroform
1,2,3-TCB = 1,2,3-trichlorobenzene
1,2,4-TMB = 1,2,4-trimethylbenzene
IPB = isopropylbenzene
n-BB= n-buty;benzene
MCLs = maximum contaminant levels

TPHo = total petroleum hydrocarbons as oil range
T = toluene
MTBE = methyl tertiary butyl ether
1,2-DCA = 1,2-dichloroethane
BDCM = bromodichloromethane
1,2,4-TCB = 1,2,4-trichlorobenzene
N = naphthalene
A = acetone
VOCs = volatile organic compounds

TABLE 10 (page 1 of 4)
GROUNDWATER AND SURFACE WATER SAMPLE ANALYTICAL RESULTS
OF METALS

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Date	Location	Analytes																												
			EPA Method 1640 (results in micrograms per liter [µg/L])						EPA Methods 6010B/7470A (results in milligrams per liter [mg/L])																						
			As	Cd	Cr	Cu	Pb	Zn	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
JMW1	6/5/00	-	-	-	-	-	-	ND	0.13	0.11	ND	0.14	-	ND	ND	1.38	-	0.30	-	-	ND	N D	ND	-	ND	N D	-	0.03	ND	3.29	
	1/16/01	-	-	-	-	-	-	ND	0.076	ND	ND	0.110	-	ND	ND	0.121	-	0.021	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.680	
	7/20/01	-	-	-	-	-	-	ND	0.128	ND	ND	ND	-	ND	ND	ND	-	ND	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.374	
	1/3/02	30.9	0.511	0.391	1.07	1.03	143	-	-	-	-	-	622	-	-	<0.030	<0.030	-	2,006	1.5	-	-	-	614	-	-	15,160	-	-	0.27	
	6/18/03	61.7	0.0715	0.422	1.10	<0.05	63.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/20/06	396	1.18	0.717	90.9	286	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
JMW2	6/5/00	-	-	-	-	-	-	ND	ND	ND	ND	0.12	-	ND	ND	1.16	-	0.16	-	-	ND	N D	ND	-	ND	N D	-	0.07	ND	2.89	
	1/16/01	-	-	-	-	-	-	ND	ND	ND	ND	0.199	-	ND	ND	0.242	-	0.013	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.596	
	7/20/01	-	-	-	-	-	-	ND	ND	0.530	ND	ND	-	ND	ND	ND	-	ND	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.089	
	1/3/02 ¹	1.57/ 1.68	0.055/ 0.050	0.729/ 0.710	0.442/ 0.454	<0.1/ <0.1	5.91/ 5.77	-	-	-	-	-	692/ 584	-	-	<0.030/ <0.030	0.49/ <0.030	-	2,057/ 1,731	2.0/ 1.8	-	-	-	601/ 502	-	-	15,410/ 12,370	-	-	<0.020/ <0.020	
	6/18/03	1.11/ 0.974	0.0407/ 0.0360	0.475/ 0.462	0.762/ 0.743	0.0519/ <0.05	12.7/ 9.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/20/06	1.02	0.0445	1.03	1.15	2.51	8.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
JMW3	6/5/00	-	-	-	-	-	-	ND	ND	ND	ND	0.10	-	ND	ND	1.04	-	0.19	-	-	ND	N D	ND	-	ND	N D	-	0.08	2.43	ND	
	1/16/01	-	-	-	-	-	-	ND	0.102	ND	ND	0.050	-	ND	ND	0.073	-	ND	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.458	
	7/20/01	-	-	-	-	-	-	ND	0.114	ND	ND	ND	-	ND	ND	ND	-	ND	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.109	
	1/3/02	36.7	0.039	0.500	0.457	0.161	6.02	-	-	-	-	-	638	-	-	<0.030	0.16	-	2,040	2.6	-	-	-	623	-	-	14,050	-	-	0.21	
	6/18/03	8.28	<0.01	0.902	0.364	<0.05	30.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/21/06	134	0.711	14.4	38.6	47.2	361	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
JMW4	1/16/01	-	-	-	-	-	-	ND	0.108	ND	ND	0.021	-	ND	ND	0.053	-	ND	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.356	
	7/20/01	-	-	-	-	-	-	ND	0.327	0.514	ND	ND	-	ND	ND	ND	-	ND	-	-	ND	ND	ND	-	ND	ND	-	ND	ND	0.115	
	1/3/02	34.5	0.081	0.460	0.759	0.252	16.2	-	-	-	-	-	543	-	-	<0.030	0.81	-	1,759	1.6	-	-	-	541	-	-	13,430	-	-	<0.020	
	6/18/03	124	0.135	0.345	0.669	<0.05	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/20/06	1,028	1.97	0.826	12.3	292	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE 10 (page 3 of 4)
GROUNDWATER AND SURFACE WATER SAMPLE ANALYTICAL RESULTS
OF METALS

2501 and 2510 Cleveland Avenue, National City, California

Sample Number	Date	Location	Analytes																													
			EPA Method 1640 (results in micrograms per liter [µg/L])						EPA Methods 6010B/7470A (results in milligrams per liter [mg/L])																							
			As	Cd	Cr	Cu	Pb	Zn	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn	
NMWC	8/13/99	Cleveland/ Cuyumaca Properties	-	-	-	-	-	-	0.082	ND	3.33	ND	N D	-	1.52	0.297	0.517	-	0.179	-	-	ND	ND	ND	-	ND	ND	-	ND	1.65	1.99	
	1/2/02		0.520	0.143	0.320	1.44	<0.1	6.00	-	-	-	-	-	123	-	-	<0.030	0.14	-	113	0.73	-	-	-	31.8	-	-	1,020	-	-	0.036	
	6/18/03		0.487	0.0563	4.11	0.965	<0.05	7.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW1	7/8/99		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/2/99		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1/02		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW2	6/03		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/8/99		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/2/99		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW3	1/02		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/03		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/8/99		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW3	12/2/99		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1/2/02 ²		0.566/ 0.563	0.147/ 0.142	1.50/ 1.56	1.03/ 1.01	<0.1/ <0.1	1.40/ 1.38	-	-	-	-	-	221	-	-	<0.030	0.20	-	180	0.035	-	-	-	46.3	-	-	1,448	-	-	<0.020	
	6/17/03		0.255	0.0510	8.50	0.973	<0.05	3.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trip Blank	1/02	Trip and Field Blanks	<0.1	0.00330	<0.2	<0.1	<0.1	0.971	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/03		<0.1	<0.01	<0.3	0.119	<0.05	1.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	6/06		0.0372	<0.003	0.408	0.0219	0.00594	0.346																								
Field Blank	1/2/02		<0.1	0.00389	<0.2	0.187	<0.1	5.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/18/03		<0.1	0.0176	<0.3	0.160	<0.05	0.553	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	6/21/06 (JMW7)		0.0413	<0.005	0.553	0.223	0.00749	0.278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MCLs			50	5	50	NA	NA	NA	0.006	0.05	1	0.004	0.005	NA	0.05	NA	NA	NA	NA	NA	NA	0.002	NA	0.1	NA	0.05	NA	NA	0.002	NA	NA	
Ocean Plan - daily maximum			32	4	8 ³	12	8	80	NA	0.032	NA	NA	0.004	NA	0.008 ³	NA	0.008	NA	0.008	NA	NA	0.00016	NA	0.020	NA	0.060	0.0028	NA	NA	NA	0.080	
CTRC- 1-day maximum			69	40	1,100	4.4	210	91	NA	0.069	NA	NA	0.040	NA	1.100	NA	0.0044	NA	0.00210	NA	NA	0.0018	NA	0.074	NA	0.290	0.0019	NA	NA	NA	0.090	

TABLE 10 (page 4 of 4)
GROUNDWATER AND SURFACE SAMPLE ANALYTICAL RESULTS
OF METALS

2501 and 2510 Cleveland Avenue, National City, California

Notes:				
As = arsenic	Cd = cadmium	Cr = chromium	Cu = copper	Pb= lead
Zn = zinc	Sb = antimony	Ba = barium	Be = beryllium	Ca = calcium
Co = cobalt	Fe = iron	Mg = magnesium	Mn = manganese	Hg = mercury
Mo = molybdenum	Ni = nickel	K = potassium	Se = selenium	Ag = silver
Na = sodium	Tl = thallium	V = vanadium	MCLs = maximum contaminant levels	CTRC = California Toxics Rule criteria
Groundwater and surface water samples collected by SCS Engineers (SCS) June 20 and 21, 2006.				
Groundwater and surface water samples analyzed for metals in general accordance with EPA Method 1640.				
ND and < indicate the reported concentration was not above the laboratory detection limit for the relevant analytical method.				
- indicates sample was not analyzed for respective analyte.				
NS indicates not sampled.				
NA indicates not applicable.				
1. Blind duplicate.				
2. Laboratory duplicate.				
3. Ocean Plan chromium value is for hexavalent chromium only, the Ocean Plan has not established a value for total chromium. According to the Ocean Plan, dischargers may choose to make this value the total chromium objective. Analytical data are total chromium.				
Bold print indicates result above laboratory detection limits.				
<i>Italicized print</i> indicates result exceeding respective MCL, Ocean Plan criteria, or CTRC.				
2,860/2,970 indicates the results of original and duplicate analysis.				

TABLE 11 (PAGE 1 OF 3)

**SOIL VAPOR SAMPLE ANALYTICAL RESULTS
OF VOLATILE ORGANIC COMPOUNDS, METHANE, AND FIXED GASES**

2501 and 2510 Cleveland Avenue, National City, California

Sample Station	Sample Number	Date	Depth (Feet below grade)	B (µg/L-v)	T (µg/L-v)	TCFM (µg/L-v)	Other VOCs (µg/L-v)	Methane (mg/L-v)	Carbon Dioxide (as %)	Oxygen (as %)	Nitrogen (as %)
SV1	SV1-5	8/20/04	5	<0.1	<1	<1	ND	16	<0.2	21	79
	SV1-5	9/10/04	5	<0.1	<1	<1	ND	<10	-	-	-
	SV1-5	9/14/04	5	0.2	<1	<1	ND	<10	4.3	16	78
SV2	SV2-5	8/20/04	5	<0.1	<1	<1	ND	<10	<0.2	21	80
	SV2-5	9/14/04	5	0.2	<1	<1	ND	<10	2.2	19	76
SV3	SV3-5	8/20/04	5	0.11	<1	<1	ND	11	3.5	17	81
	SV3-2.5/SV3-2.5 dup*	9/10/04	2.5	0.1/0.1	<1/<1	<1/<1	ND/ND	<10/<10	0.58	21	80
	SV3-5	9/14/04	5	0.1	<1	<1	ND	<10	3.1	18	78
SV4	SV4-5	8/20/04	5	<0.1	<1	<1	ND	<10	3.5	17	81
	SV4-2.5	9/10/04	2.5	0.1	<1	<1	ND	<10	0.61	20	80
	SV4-5	9/14/04	5	0.1	<1	<1	ND	<10	3.4	17	78

TABLE 11 (PAGE 2 OF 3)

**SOIL VAPOR SAMPLE ANALYTICAL RESULTS
OF VOLATILE ORGANIC COMPOUNDS, METHANE, AND FIXED GASES**

2501 and 2510 Cleveland Avenue, National City, California

Sample Station	Sample Number	Date	Depth (Feet below grade)	B (µg/L-v)	T (µg/L-v)	TCFM (µg/L-v)	Other VOCs (µg/L-v)	Methane (mg/L-v)	Carbon Dioxide (as %)	Oxygen (as %)	Nitrogen (as %)
SV5	SV5-5	8/20/04	5	<0.1	<1	1.6	ND	<10	<0.2	21	80
	SV5-5	9/10/04	5	0.2	1.6	<1	ND	<10	0.47	21	80
	SV5-5	9/14/04	5	0.1	<1	1.9	ND	<10	1.2	20	78
SV6	SV6-5	8/20/04	5	<0.1	<1	1.3	ND	<10	<0.2	20	81
	SV6-5	9/10/04	5	0.3	1.0	<1	ND	<10	0.19	21	81
	SV6-5	9/14/04	5	0.1	<1	2.8	ND	<10	1.1	20	79
SV7	SV7-5/SV7-5 dup*	8/20/04	5	<0.1/<0.1	<1/<1	<1/<1	ND/ND	<10/ 13	<0.2/<0.2	21/21	80/80
	SV7-3.5	9/10/04	3.5	0.3	1.2	<1	ND	<10	<0.1	21	79
	SV7-5	9/14/04	5	0.2	<1	<1	ND	<10	0.94	19	76
SV8	SV8-5	8/20/04	5	<0.1	<1	<1	ND	<10	<0.2	21	80
	SV8-5	9/10/04	5	0.4	<1	<1	ND	<10	0.16	20	80
	SV8-5	9/14/04	5	<0.1	<1	<1	ND	<10	1.1	20	78

TABLE 11 (PAGE 3 OF 3)

**SOIL VAPOR SAMPLE ANALYTICAL RESULTS
OF VOLATILE ORGANIC COMPOUNDS, METHANE, AND FIXED GASES**

2501 and 2510 Cleveland Avenue, National City, California

Sample Station	Sample Number	Date	Depth (Feet below grade)	B (µg/L-v)	T (µg/L-v)	TCFM (µg/L-v)	Other VOCs (mg/L-v)	Methane (mg/L-v)	Carbon Dioxide (as %)	Oxygen (as %)	Nitrogen (as %)
SV9	SV9-5	8/20/04	5	<0.1	<1	<1	ND	<10	<0.2	21	80
SV10	SV10-5	8/20/04	5	<0.1	<1	<1	ND	<10	4.8	12	85
SV11	SV11-5	8/20/04	5	<0.1	<1	<1	ND	<10	7.0	13	82
SV12	SV12-5	8/20/04	5	0.31	<1	<1	ND	480	8.8	3.6	90
	SV12-5	9/10/04	5	0.5	1.1	<1	ND	340	6.1	9.1	86
	SV12-5/SV12-5 dup*	9/14/04	5	0.6/0.5	<1/<1	<1/<1	ND/ND	640/540	6.7	3.2	91
SV13	SV13-5	8/20/04	5	<0.1	<1	<1	ND	<10	<0.2	19	79
SV14	SV14-5	8/20/04	5	<0.1	<1	<1	ND	<10	2.8	18	81
SV15	SV15-5	8/20/04	5	<0.1	<1	<1	ND	<10	<0.2	21	79

Notes:

Samples collected by SCS Engineers on August 20, September 10, and September 14, 2004.

B = benzene

TCFM = trichlorofluoromethane

VOCs = volatile organic compounds

< indicates the reported concentration was not above the laboratory detection limit for the respective analyte.

- indicates the sample was not analyzed for respective analyte.

ND = not detected in concentrations above laboratory detection limits.

* indicates a sample was analyzed in duplicate for quality control purposes.

Results reported in units of micrograms per liter as vapor (µg/L-v), milligrams per liter as vapor (mg/L-v), or as percent (%) of total volume.

Samples analyzed for VOCs in general accordance with EPA Method 8260B.

TABLE 12 (page 1 of 2)
GROUNDWATER ELEVATION DATA

2501 and 2510 Cleveland Avenue, National City, California

Monitor Well (Screen Interval)	Date	Total Depth of Well (in feet below grade)	Depth to Water (in feet below TOC)	Surveyed TOC Elevation (feet above MSL)	GW Elevation (feet above MSL)
CDC3 (21 to 36)	6/27/06	36	28.87	31.71	2.84
CDC4 (23 to 38)	6/27/06	38	30.20	32.97	2.77
CDC5 (23 to 38)	6/27/06	38	31.63	34.47	2.84
JMW1 (2 to9)	1/12/02	9	1.72	3.63	1.91
	6/26/03		1.93		1.70
	6/27/06		1.78	5.904	4.124
JMW2 (2 to9)	1/12/02	9	1.40	3.76	2.36
	6/26/03		1.66		2.10
	6/27/06		1.50	6.03	4.53
JMW3 (2 to9)	1/12/02	9	1.67	3.81	2.14
	6/26/03		1.90		1.91
	6/27/06		1.75	6.03	4.28
JMW4 (2 to9)	1/12/02	9	1.22	3.54	2.32
	6/26/03		1.44		2.10
	6/27/06		1.29	5.78	4.49
JMW5 (2 to9)	6/27/06	9	1.17	6.06	4.89
NMW1 (25 to 45)	1/12/02	45	-	26.88	NA
	6/26/03		25.95		0.93
NMW2 (25 to 45)	1/12/02	45	25.31	26.53	1.22
	6/26/03		25.57		0.96
NMW3 (25 to 45)	1/12/02	45	-	26.82	NA
	6/26/03		25.85		0.97
NMWA (25 to 45)	1/12/02	45	Dry	27.00	NA
	6/26/03				
NMWB (25 to 45)	1/12/02	45	25.10	26.30	1.20
	6/26/03		25.50		0.80
NMWC (25 to 45)	1/12/02	45	27.96	29.15	1.19
	6/26/03		28.20		0.95
MW1 (20 to 28)	1/12/02	28	Dry	27.87	NA
	6/26/03				
MW2 (20 to 35)	1/12/02	35	Dry	27.50	NA
	6/26/03				
MW3 (20 to 35)	1/12/02	35	24.42	25.61	1.19
	6/26/03		24.70		0.91

TABLE 12 (page 2 of 2)
GROUNDWATER ELEVATION DATA

2501 and 2510 Cleveland Avenue, National City, California

Notes:

Data collected by SCS Engineers on June 27, 2006; June 26, 2003, and January 12, 2002.

Survey performed by Hopwood Land Surveying on January 14, 2002.

TOC = top of well casing

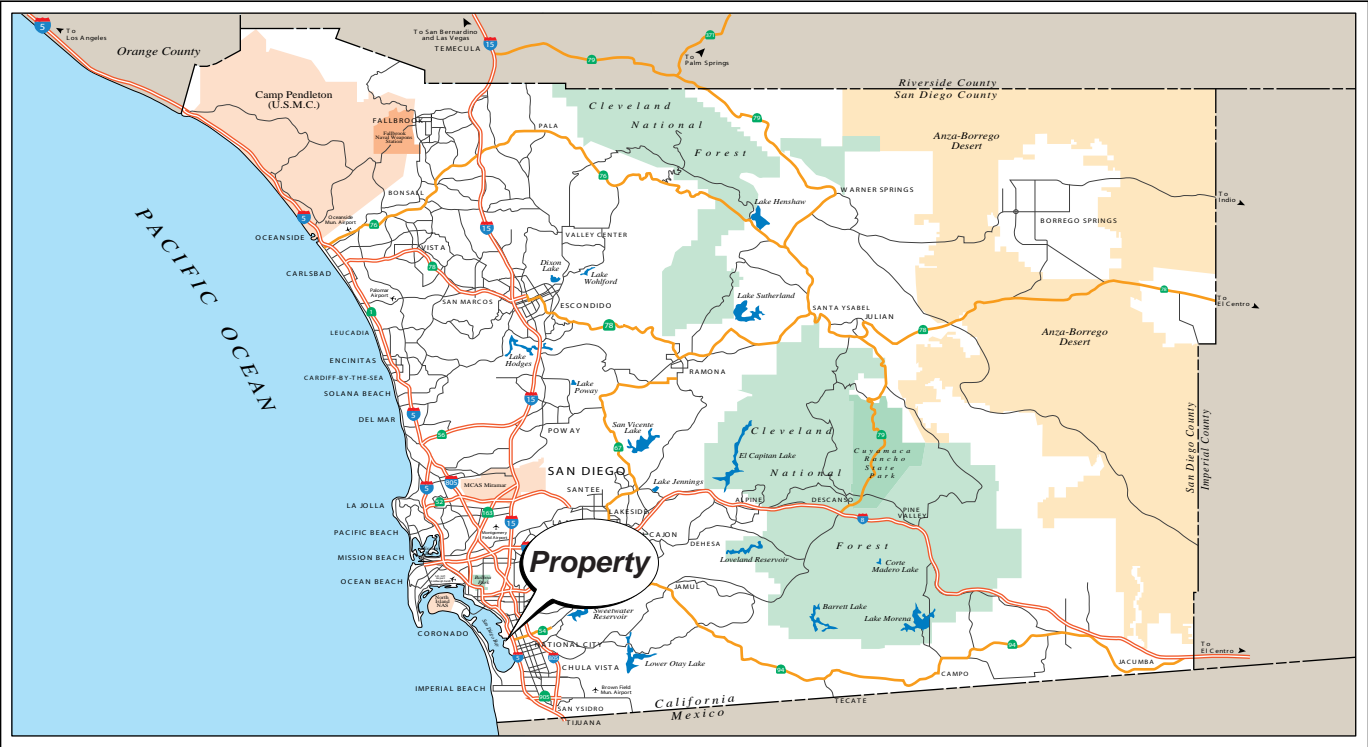
MSL = mean sea level

GW = groundwater

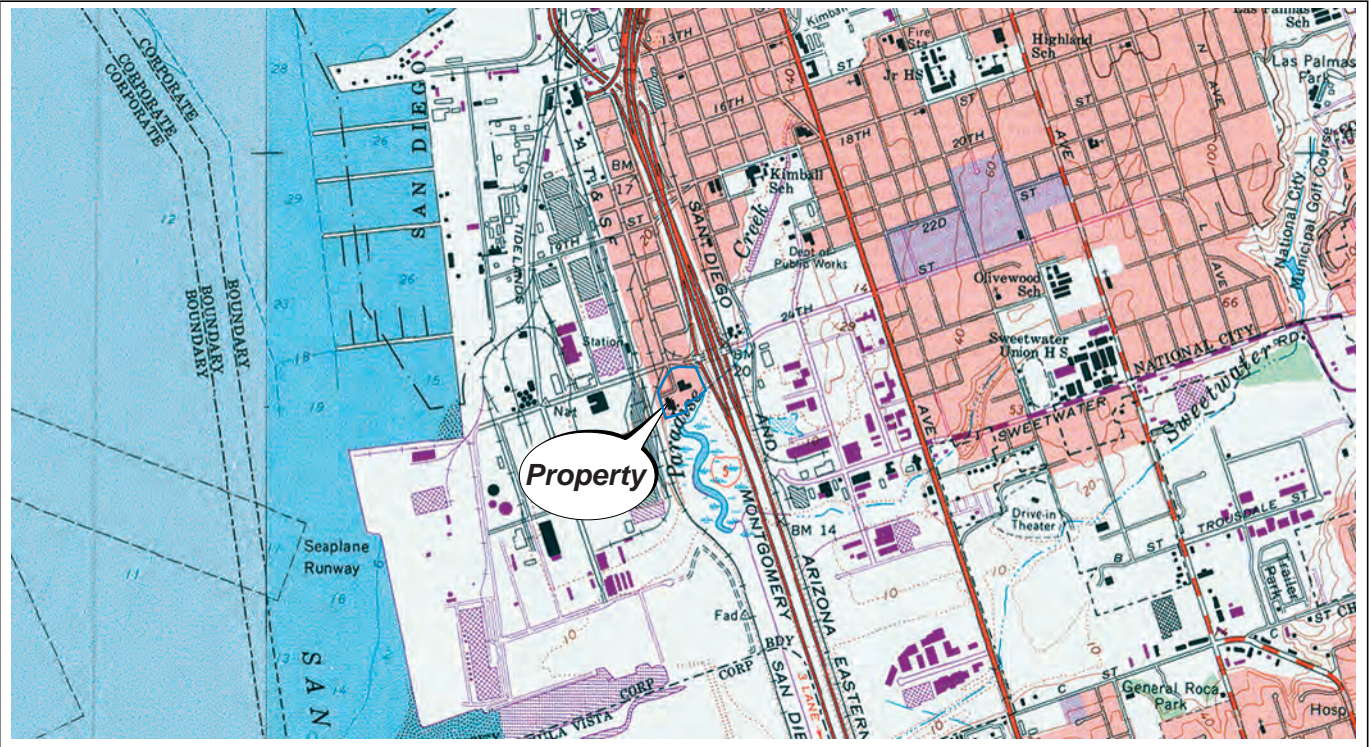
NA = not applicable

- indicates depth to groundwater was not measured for respective well.

FIGURES



REGIONAL SITE LOCATION



2-DIMENSIONAL SITE LOCATION



SITE AERIAL PHOTOGRAPH



3-DIMENSIONAL SITE LOCATION

Reference:
Terra Server Aerial Photograph
National City, California - May 1994

0 660 1320 1980
Approximate Graphic Scale in Feet

Reference:
U.S.G.S. 7.5 Minute Quadrangle map
National City, California - 1977. Photo revised 1982.

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

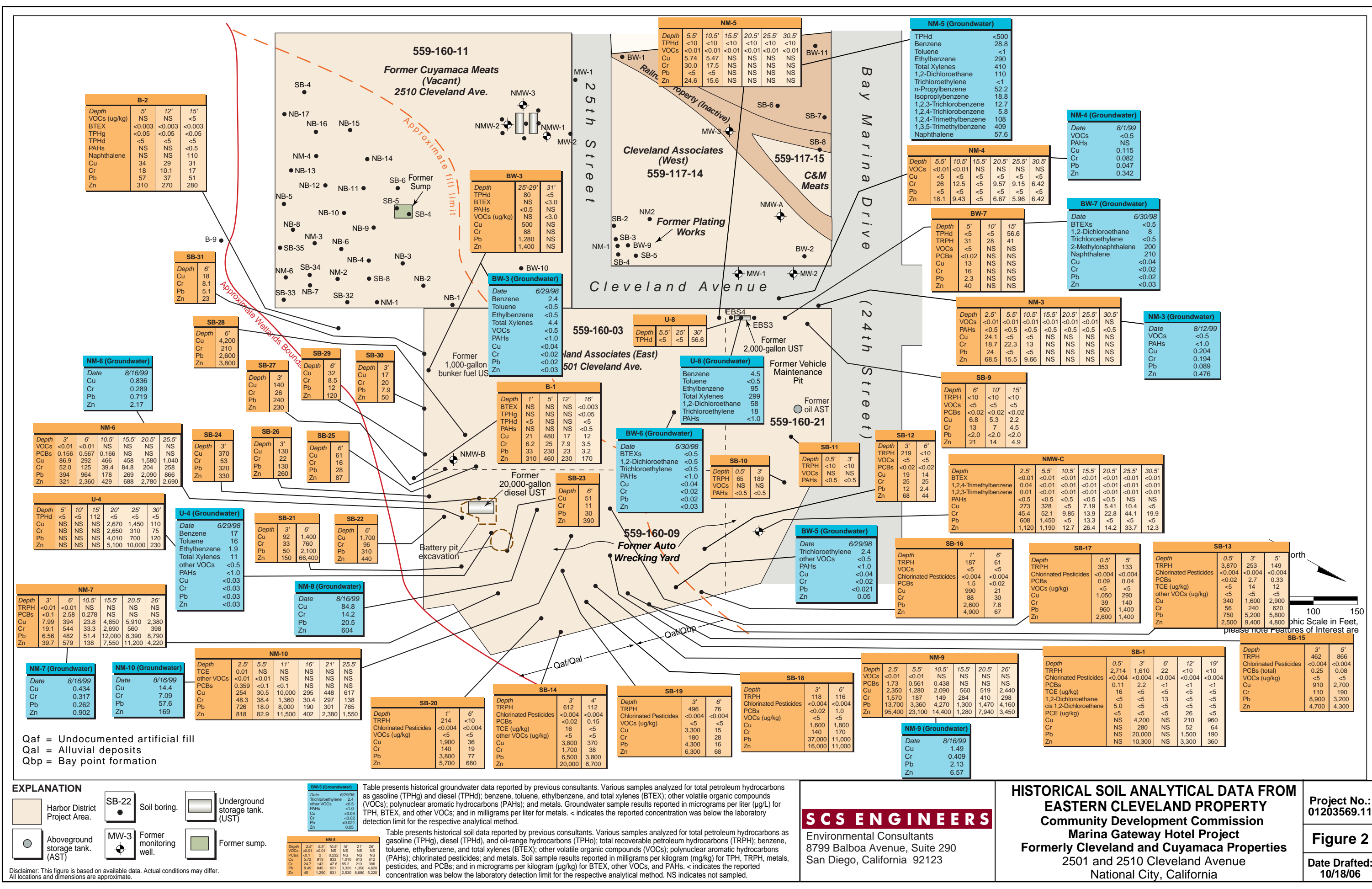
4-WAY SITE LOCATION MAP
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

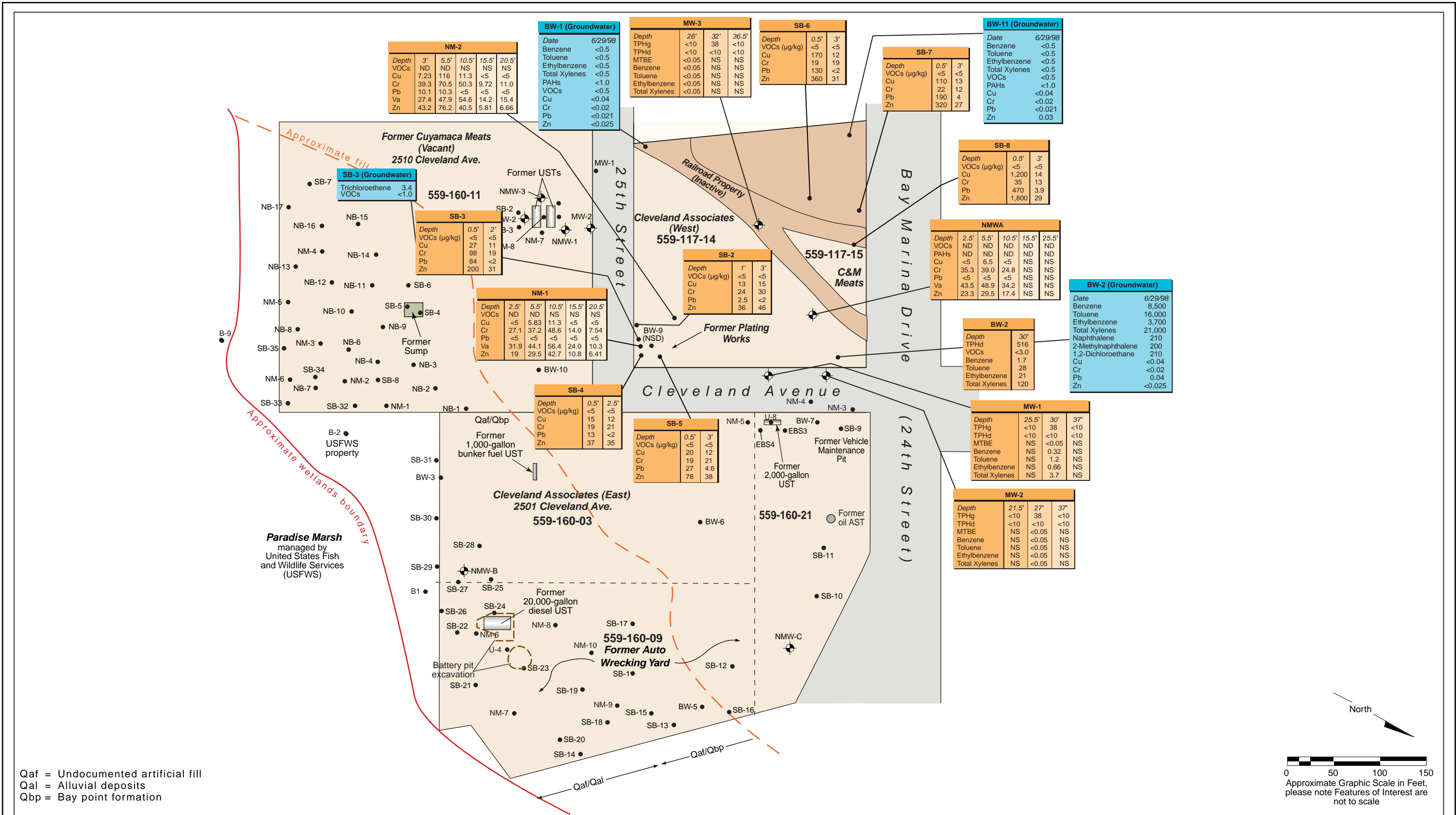
Project No.:
01203569.11

Figure 1

Date Drafted:
9/14/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.





Harbor District
Project Area.

Aboveground
storage tank.
(AST)

Soil boring.

Former monitoring
well.

Underground
storage tank.
(UST)

Former sump.

Date

6/29/98

Benzene

<0.5

Toluene

<0.5

Ethylbenzene

<0.5

Total Xylenes

<1.0

PAHs

<1.0

VOCs

<0.5

Cu

<0.04

Cr

<0.021

Pb

<0.025

Zn

<0.025

Depth

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VOCs

ND

Depth

5.5'

VOCs

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905.5'

VOCs

NS

Depth

910.5'

VOCs

NS

Depth

915.5'

VOCs

NS

Depth

920.5'

VOCs

NS

Depth

925.5'

VOCs

NS

Depth

930.5'

VOCs

NS

Depth

935.5'

VOCs

NS

Depth

940.5'

VOCs

NS

Depth

945.5'

VOCs

NS

Depth

950.5'

VOCs

NS

Depth

955.5'

VOCs

NS

Depth

960.5'

VOCs

NS

Depth

965.5'

VOCs

NS

Depth

970.5'

VOCs

NS

Depth

975.5'

VOCs

NS

Depth

980.5'

VOCs

NS

Depth

985.5'

VOCs

NS

Depth

990.5'

VOCs

NS

Depth

995.5'

VOCs

NS

Depth

1000.5'

VOCs

NS

Depth

1005.5'

VOCs

NS

Depth

1010.5'

VOCs

NS

Depth

1015.5'

VOCs

NS

Depth

1020.5'

VOCs

NS

Depth

1025.5'

VOCs

NS

Depth

1030.5'

VOCs

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VOCs

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1040.5'

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1055.5'

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VOCs

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1070.5'

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NS

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1075.5'

VOCs

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1080.5'

VOCs

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VOCs

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1090.5'

VOCs

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1095.5'

VOCs

NS

Depth

1100.5'

VOCs

NS

Depth

1105.5'

VOCs

NS

Depth

1110.5'

VOCs

NS

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1115.5'

VOCs

NS

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1120.5'

VOCs

NS

Depth

1125.5'

VOCs

NS

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1130.5'

VOCs

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VOCs

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1170.5'

VOCs

NS

Depth

1175.5'

VOCs

NS

Depth

1180.5'

VOCs

NS

Depth

1185.5'

VOCs

NS

Depth

1190.5'

VOCs

NS

Depth

1195.5'

VOCs

NS

Depth

1200.5'

VOCs

NS

Depth

1205.5'

VOCs

NS

Depth

1210.5'

VOCs

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1215.5'

VOCs

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1220.5'

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1270.5'

VOCs

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VOCs

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1280.5'

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1285.5'

VOCs

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1290.5'

VOCs

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Depth

1295.5'

VOCs

NS

Depth

1300.5'

VOCs

NS

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1305.5'

VOCs

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VOCs

NS

Depth

1385.5'

VOCs

NS

Depth

1390.5'

VOCs

NS

Depth

1395.5'

VOCs

NS

Depth

1400.5'

VOCs

NS

Depth

1405.5'

VOCs

NS

Depth

1410.5'

VOCs

NS

Depth

1415.5'

VOCs

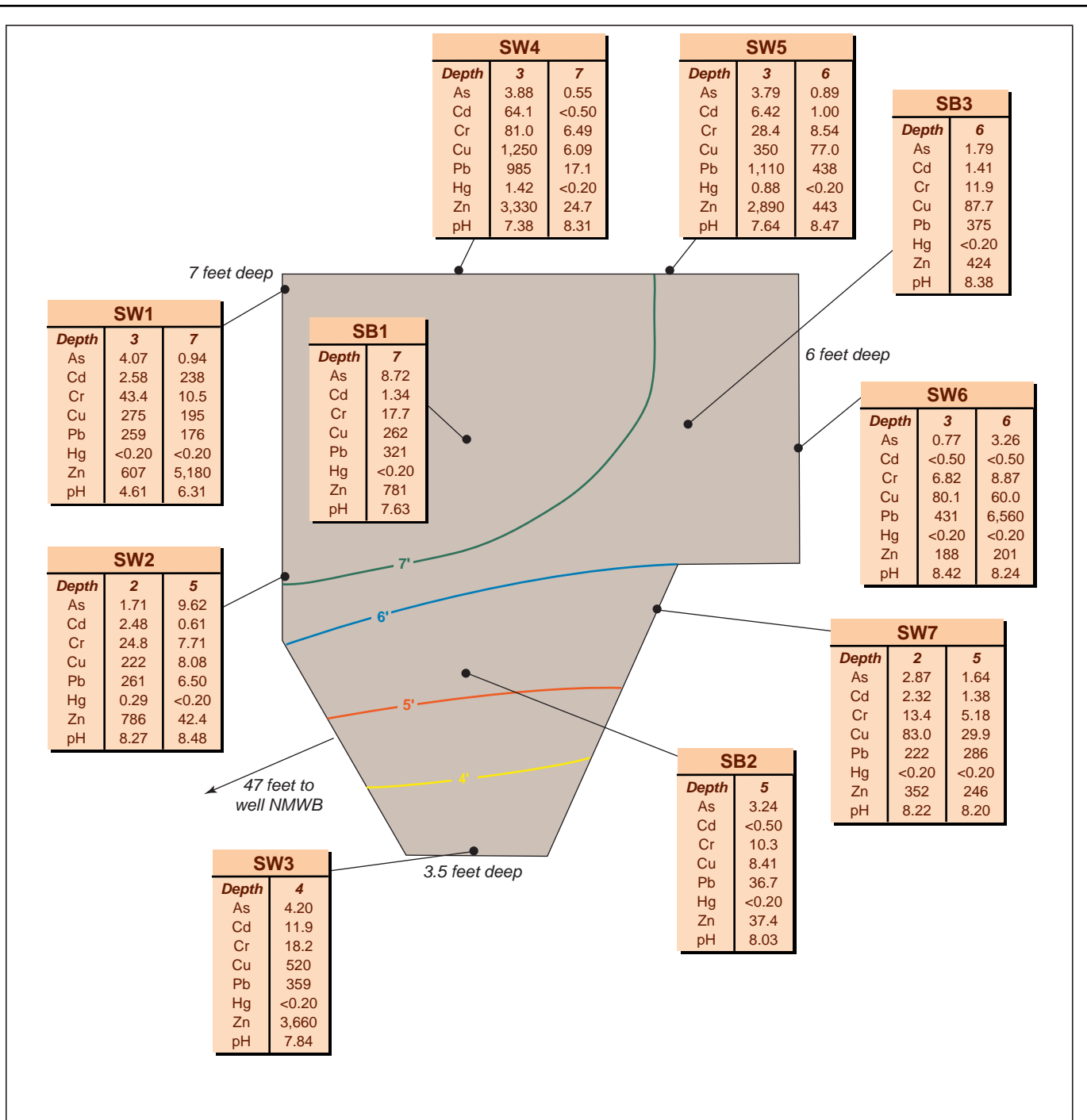
NS

Depth

1420.5'

VOCs

NS



EXPLANATION

Depth	4
As	4.20
Cd	11.9
Cr	18.2
Cu	520
Pb	359
Hg	<0.20
Zn	3,660
pH	7.84

Soil samples analyzed for Title 22 metals in general accordance with EPA Method 6010B/7470A, and for pH in general accordance with EPA Method 150.1. Results for selected metals reported in milligrams per kilogram (mg/kg). < indicates results is below laboratory detection limits.

As = arsenic Pb = lead
Cd = cadmium Hg = mercury
Cr = chromium Zn = zinc
Cu = copper

0 4 8 12
Approximate Graphic Scale in Feet

North



Approximate depth of excavation

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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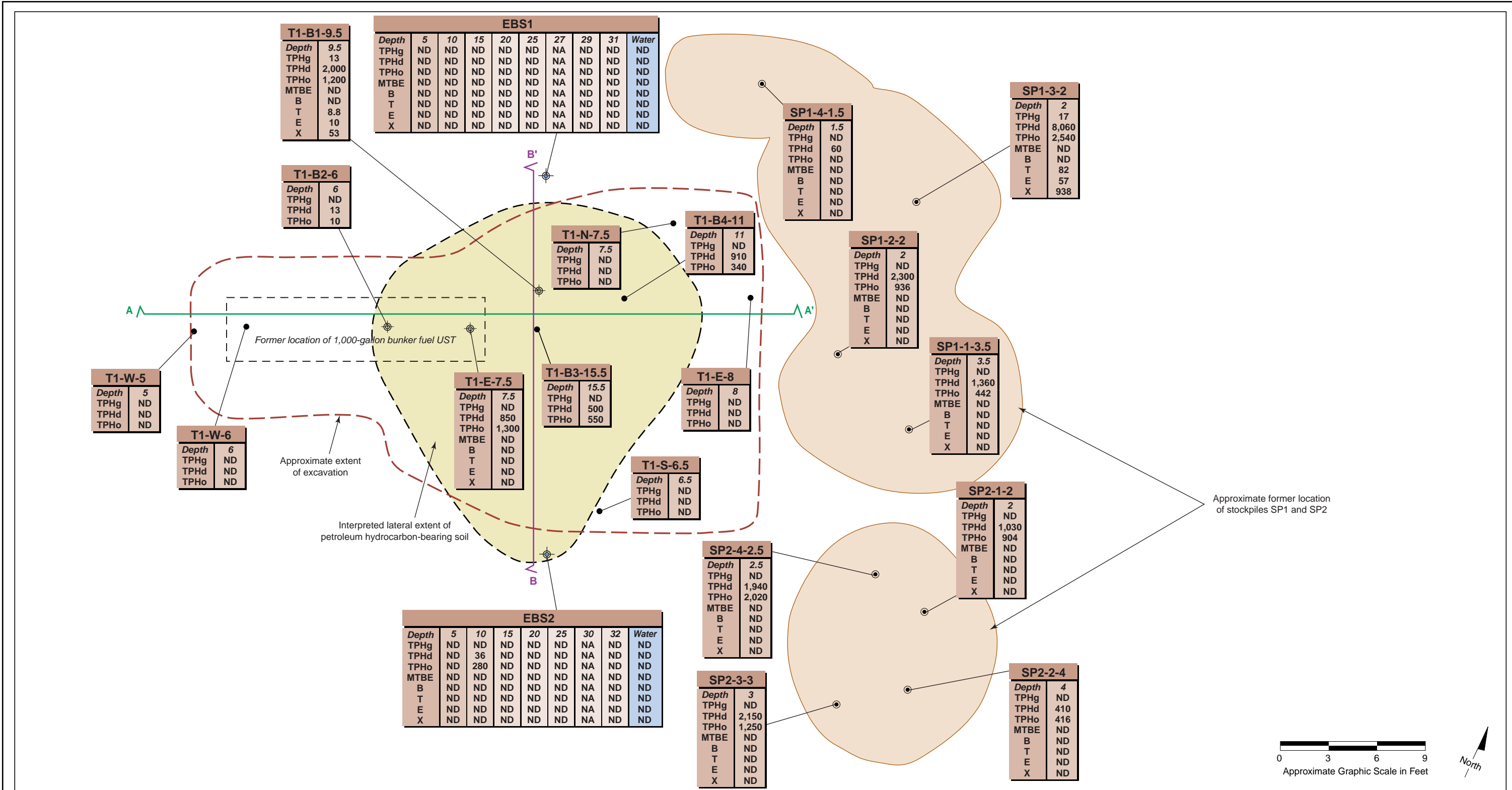
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San Diego, California 92123

**SOIL ANALYTICAL DATA
FOR BATTERY PIT EXCAVATION**
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 5

Date Drafted:
10/18/06



Soil sample location. Soil sample not excavated.

Soil sample location. Soil sample excavated.

Soil boring and groundwater sample location.

Stockpile sample location.

EBS2											
Depth	5	10	15	20	25	30	35	40	Water		
TPHg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TPHd	ND	ND	ND	ND	ND	75	35	ND	ND	ND	
TPHo	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	
MTBE	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	
B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
T	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	
E	ND	ND	ND	ND	ND	810	ND	ND	ND	19	
X	ND	ND	ND	ND	ND	1,900	ND	ND	ND	74	

Soil and groundwater samples analyzed for total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and as oil-range hydrocarbons (TPHo) in general accordance with modified EPA Method 8015. Some soil and groundwater samples also analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), and other oxygenates in general accordance with EPA Method 8260B. ND indicates the reported concentration was below the laboratory detection limit for the relevant analytical method. NA indicates not analyzed. Soil sample results reported in milligrams per kilogram (mg/kg) for TPH and in micrograms per kilogram (µg/kg) for BTEX and MTBE. Groundwater sample results reported in micrograms per liter (µg/L).

UST = Underground storage tank

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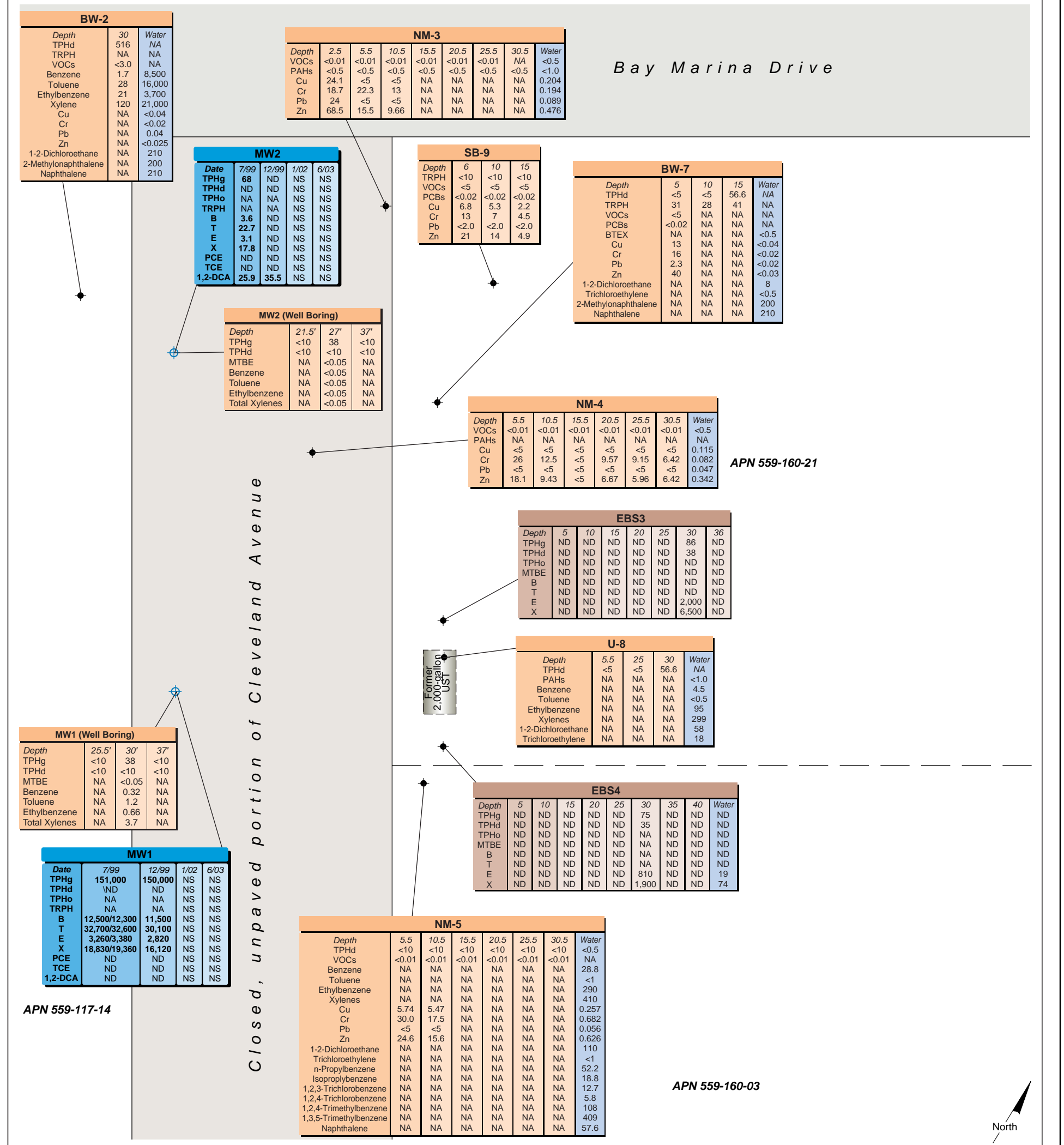
SOIL ANALYTICAL DATA FOR UST REMOVAL
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 6

Date Drafted:
10/18/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.



EXPLANATION

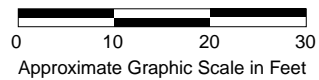


Soil boring location.



Former groundwater monitoring well location.

UST = Underground storage tank



EBS4									
Depth	5	10	15	20	25	30	35	40	Water
TPHg	ND	ND	ND	ND	ND	75	ND	ND	ND
TPHd	ND	ND	ND	ND	ND	35	ND	ND	ND
TPHo	ND	ND	ND	ND	ND	NA	ND	ND	ND
MTBE	ND	ND	ND	ND	ND	NA	ND	ND	ND
B	ND	ND	ND	ND	ND	NA	ND	ND	ND
T	ND	ND	ND	ND	ND	NA	ND	ND	ND
E	ND	ND	ND	ND	ND	810	ND	ND	19
X	ND	ND	ND	ND	ND	1,900	ND	ND	74

Soil and groundwater samples analyzed for total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHD), and as oil-range hydrocarbons (TPHO) in general accordance with modified EPA Method 8015. Some soil and groundwater samples also analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), and other oxygenates in general accordance with EPA Method 8260B. ND indicates the reported concentration was below the laboratory detection limit for the relevant analytical method. NA indicates not analyzed. Groundwater sample results reported in micrograms per liter (µg/L). Soil sample results reported in milligrams per kilogram (mg/kg) for TPH and in micrograms per kilogram (µg/kg) for MTBE and BTEX.

BW-7				
Depth	5	10	15	Water
TPHD	<5	<5	56.6	NA
TRPH	<5	28	41	NA
VOCs	NA	NA	NA	NA
PCBs	<0.02	NA	NA	NA
BTEX	NA	NA	NA	<0.5
Cu	13	NA	NA	<0.04
Zn	16	NA	NA	<0.02
Pb	2.3	NA	NA	<0.02
	40	NA	NA	<0.03
1,2-Dichloroethane	NA	NA	NA	8
Trichloroethylene	NA	NA	NA	<0.5
2-Methylnaphthalene	NA	NA	NA	200
Naphthalene	NA	NA	NA	210

Historical data reported by previous consultants. Various samples analyzed for total petroleum hydrocarbons as gasoline (TPHg), as diesel (TPHd), and as oil-range hydrocarbons (TPHo); total recoverable petroleum hydrocarbons (TRPH); benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tertiary butyl ether (MTBE); other volatile organic compounds (VOCs); polynuclear aromatic hydrocarbons (PAHs); and metals. Soil sample results reported in milligrams per kilogram (mg/kg) for TPH, TRPH, metals, and PCBs, and in micrograms per kilogram ($\mu\text{g/kg}$) for BTEX, MTBE, other VOCs, and PAHs. Groundwater samples reported in milligrams per liter (mg/L) for metals, and in micrograms per liter ($\mu\text{g/L}$) for TPH, TRPH, BTEX, MTBE, other VOCs, and PAHs.

MW1				
Date	7/99	12/99	1/02	6/03
TPHg	151,000	150,000	NS	NS
TPPd	ND	ND	NS	NS
TPHo	NA	NA	NS	NS
TRPH	NA	NA	NS	NS
B	12,500/12,300	11,500	NS	NS
T	32,700/32,600	30,100	NS	NS
X	3,260/3,380	2,820	NS	NS
E	18,830/19,360	16,120	NS	NS
PCE	ND	ND	NS	NS
TCE	ND	ND	NS	NS
1,2-DCA	ND	ND	NS	NS

Historical groundwater samples reported by previous consultants. Samples analyzed for total petroleum hydrocarbons as gasoline (TPHg), as diesel (TPHd), and as oil-range hydrocarbons (TPHo) in general accordance with modified EPA Method 8015; volatile organic compounds (VOCs) (including benzene, toluene, ethylbenzene, and total xylenes [BTEX], tetrachloroethene [PCE], trichloroethene [TCE], and 1,2-dichloroethane [1,2-DCA] in general accordance with EPA Method 8260B; polynuclear aromatic hydrocarbons (PAHs) in general accordance with EPA Method 8310. Results reported in micrograms per liter (µg/L). < indicates the reported concentration was below the laboratory detection limit. NA indicates not analyzed. NS indicates not sampled. Please note, SCS personnel attempted to sample wells MW1 and MW2 in 2002 and 2003; however, these wells could not be sampled because the wells were dry.

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SOIL AND GROUNDWATER SAMPLE ANALYTICAL DATA

Community Development Commission of National City

Marina Gateway Hotel Project

Formerly Cleveland and Cuyamaca Properties

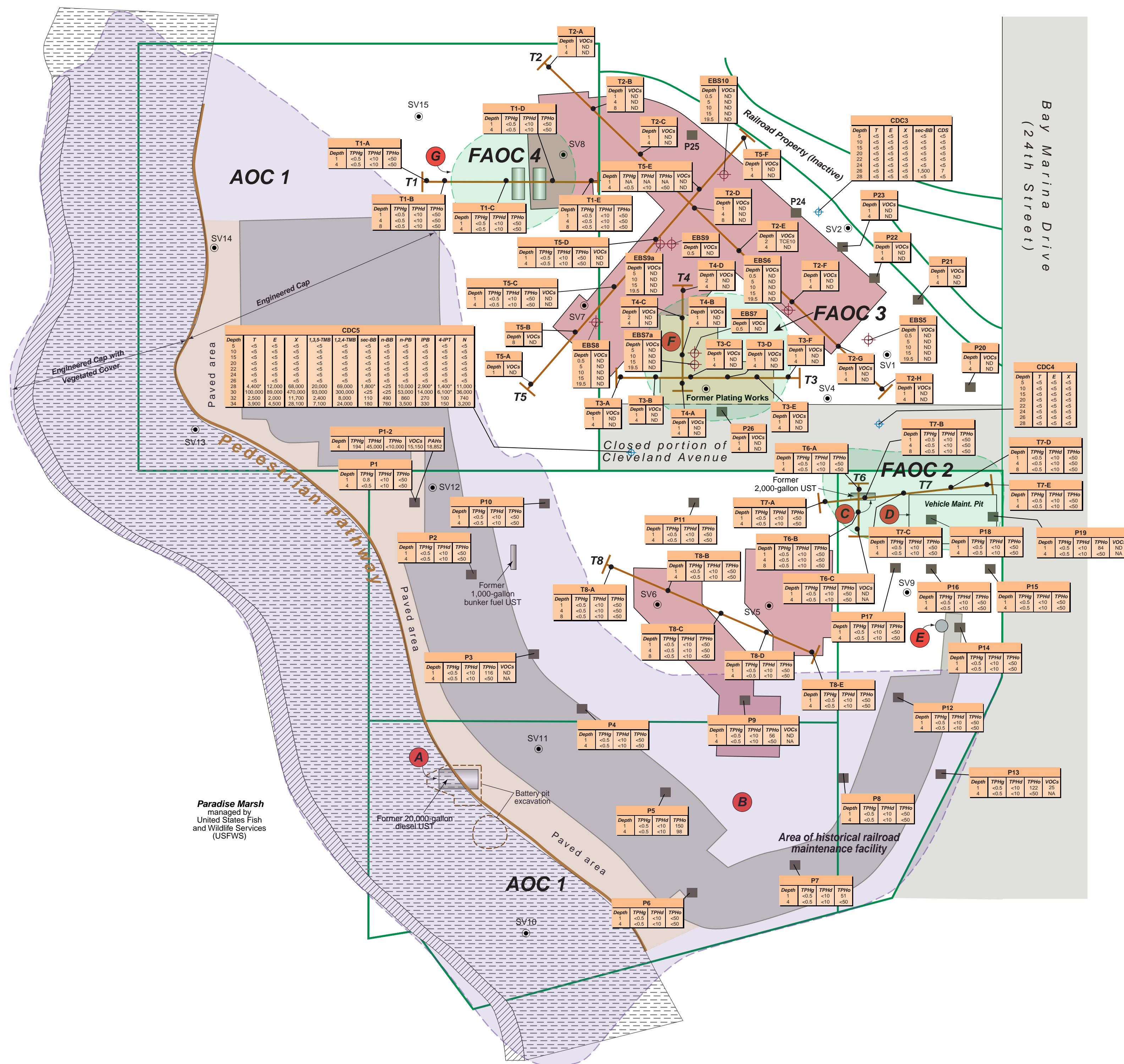
2501 and 2510 Cleveland Avenue

National City, California

Project No.:
01203569.11

Figure 7

Date Drafted:
10/18/06



EXPLANATION

Proposed building footprint.

Parcel boundaries.

Trenching location.

Upper zone planting.

Transition zone planting.

Portion of parking lot installed by CIWMB.

AOC 1

FAOC 2

Area of Contamination 1. Created by California Integrated Waste Management Board (CIWMB). Consists of engineered cap constructed with 3 to 6 feet of clean and compacted imported fill soil in unpaved areas, and a minimum of 1 foot of clean and compacted imported fill soil overlain by 6 to 8 inches of aggregate base and asphalt or concrete pavement.

Formerly considered potential areas of contamination (AOCs), but after additional assessment no longer considered AOCs. Referred to as former AOCs (FAOCs).

Pothole and shallow soil sampling location.

Soil vapor sampling location.

Soil boring sample location.

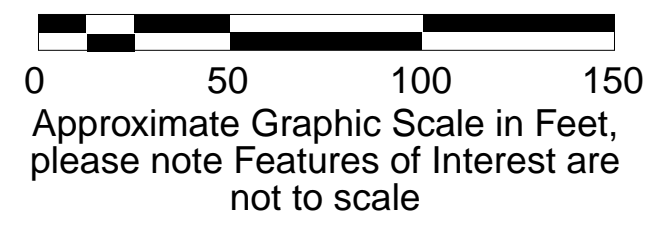
Soil sample location.

Monitoring well location.

Soil samples, with depth in feet below grade, analyzed for volatile organic compounds (VOCs) in general accordance with EPA Method 8021B. Results given in micrograms per kilogram (µg/kg). Samples also analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg), diesel (TPHd) and oil (TPHo) in general accordance with EPA Method 8015M. Results given in milligrams per kilogram (mg/kg). NA indicates sample was not analyzed. ND and < indicate the reported concentration was not above the laboratory detection limits for the respective analyte.

KNOWN AND POTENTIAL SOIL CONSOLIDATION/REUSE/REMEDATION AREAS

- A** Batteries, debris, and associated soil from the excavated location of a former 20,000-gallon underground storage tank (UST). Approximately 355 tons of soil and 16 drums of batteries/debris were excavated in July 2003 and disposed of off-site. Fully assessed by SCS, and reconsolidated and capped by California Integrated Waste Management Board (CIWMB).
- B** Former auto wrecking yard located within AOC 1. Fully assessed by SCS, and reconsolidated and capped by CIWMB.
- C** Former 2,000-gallon UST, removed May 1990. Fully assessed by SCS. Substantial soil and groundwater impacts no longer present, and no further mitigation is proposed.
- D** Former Vehicle Maintenance Pit. Feature was demolished as part of site demolition activities. Fully assessed by SCS. Substantial soil and groundwater impacts no longer present, and no further mitigation is proposed.
- E** Historical oil aboveground storage tank (AST). No release.
- F** Former plating works. Fully assessed by SCS. Some elevated metal concentrations (lead) present. Lead-bearing soil will likely be reused on-site during development.
- G** Location of former USTs, removed 1995. Approximately 200 cubic yards of soil already removed. Fully assessed by SCS, and reconsolidated and capped by CIWMB.



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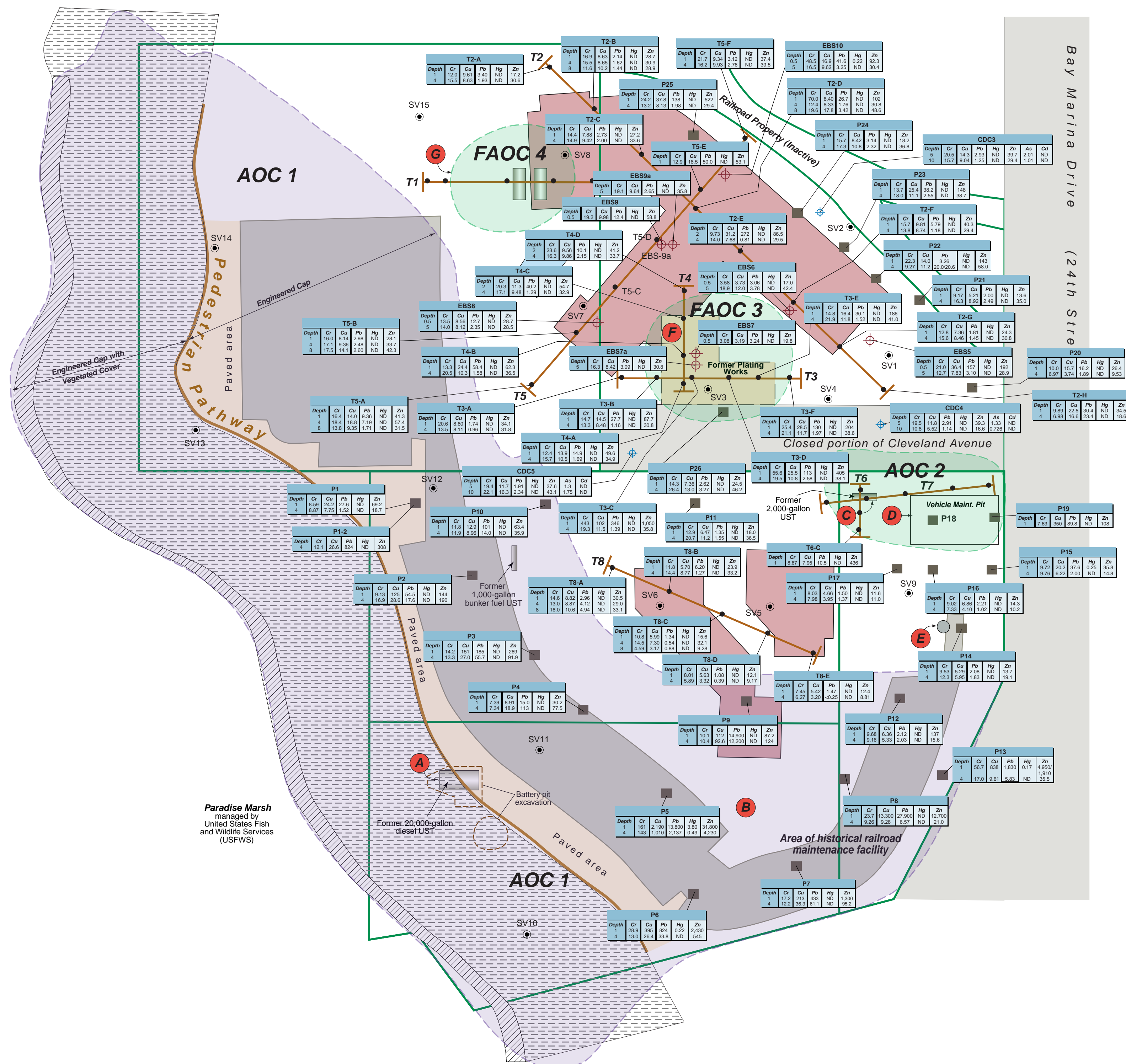
SOIL ANALYTICAL DATA FOR ORGANIC CONSTITUENTS
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.: 01203569.11

Figure 8

Date Drafted: 11/8/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.



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SOIL ANALYTICAL DATA FOR INORGANIC CONSTITUENTS
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 9

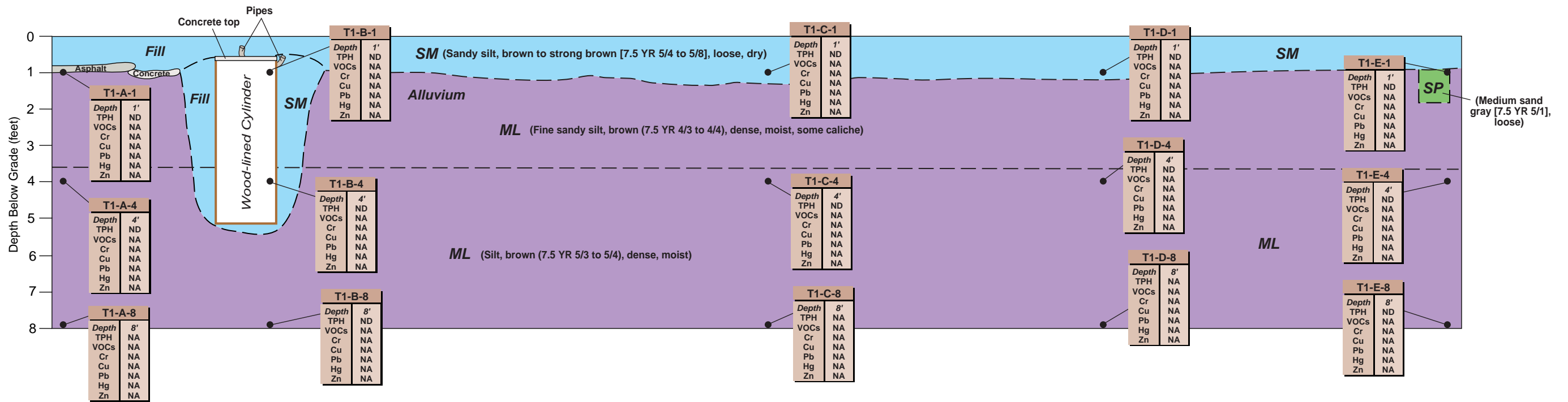
Date Drafted:
11/8/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

0 50 100 150
Approximate Graphic Scale in Feet,
please note Features of Interest are
not to scale

North

T1 (0 - 130 feet)

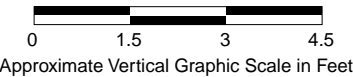
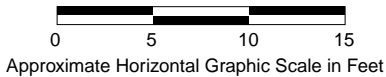


EXPLANATION

T1-A-8	
Depth	8'
TPH	NA
VOCs	NA
Cr	NA
Cu	NA
Pb	NA
Hg	NA
Zn	NA

Soil samples collected by SCS on August 12, 13, 16, and 17, 2004. Depth given in feet below grade. Samples analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), and zinc (Zn). Results reported in milligrams per kilogram (mg/kg). VOC results reported in micrograms per kilogram (µg/kg). ND indicates concentration was not above the laboratory detection limit. NA indicates not analyzed.

- SM = sandy silts/silty sands
- ML = silts/fine sandy silts
- SP = poorly graded sands



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TRENCH T1

Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

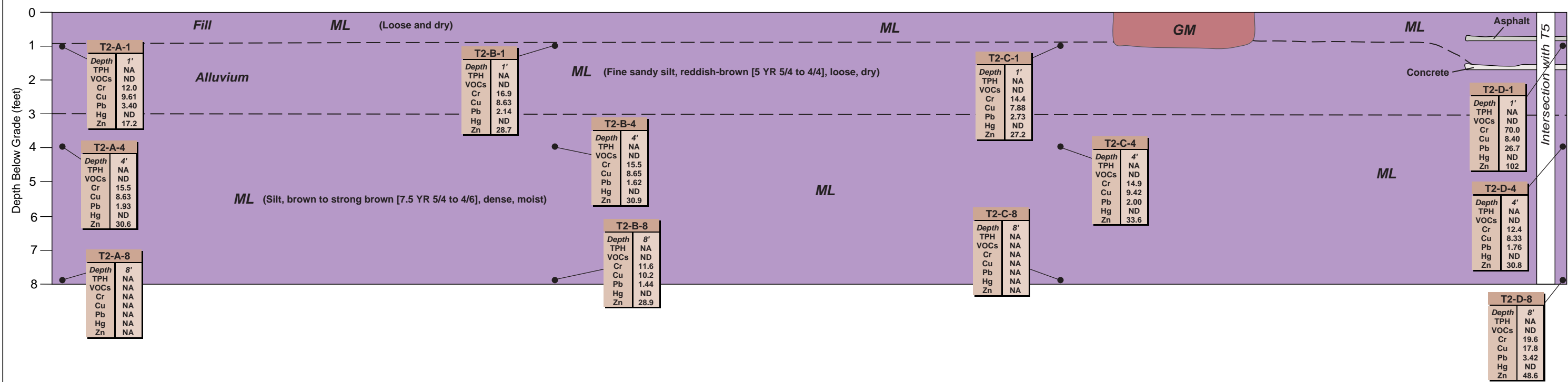
Project No.:
01203569.11

Figure 10

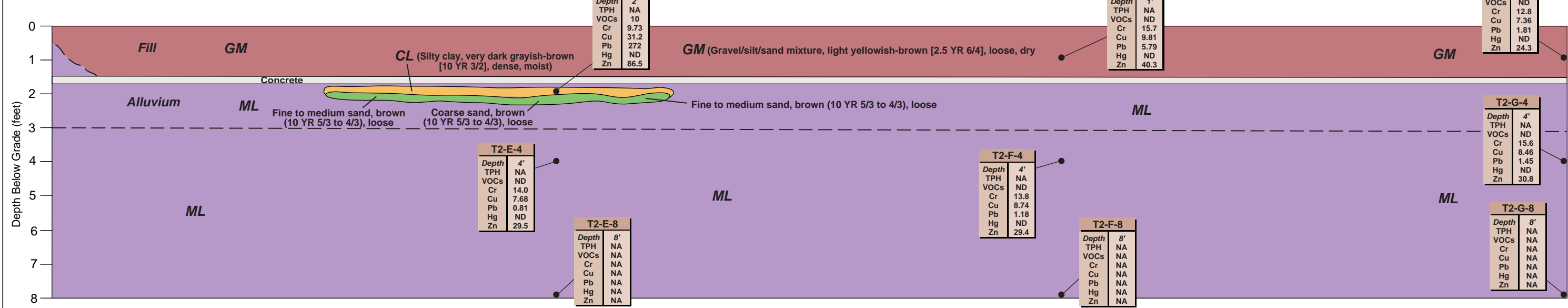
Date Drafted:
10/19/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

T2 (0 - 150 feet)



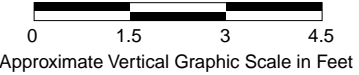
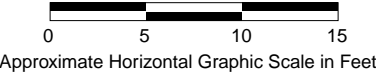
T2 (150 - 300 feet)



EXPLANATION

Soil samples collected by SCS on August 12, 13, 16, and 17, 2004. Depth given in feet below grade. Samples analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), and zinc (Zn). Results reported in milligrams per kilogram (mg/kg). VOC results reported in micrograms per kilogram (µg/kg). ND indicates concentration was not above the laboratory detection limit. NA indicates not analyzed.								
Depth	4'	TPH	NA	VOCs	ND	Cr	14.0	
		Cu	7.68			Pb	0.81	
		Hg	ND			Zn	29.5	

- SM = sandy silts/silty sands
- ML = silts/fine sandy silts
- SP = poorly graded sands
- GM = gravel/silt/sand mixture
- CL = silty clay



Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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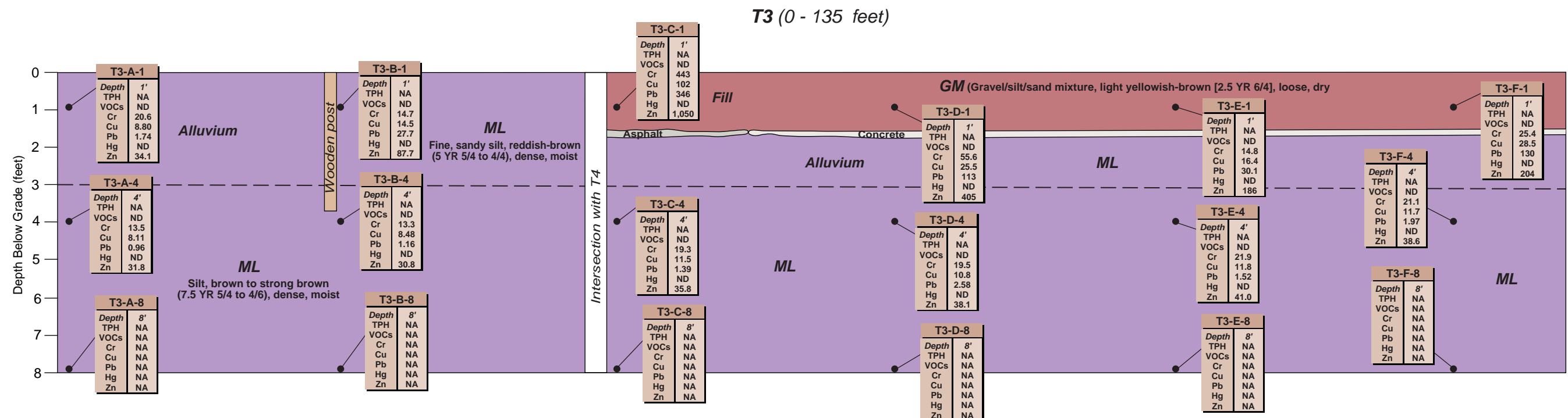
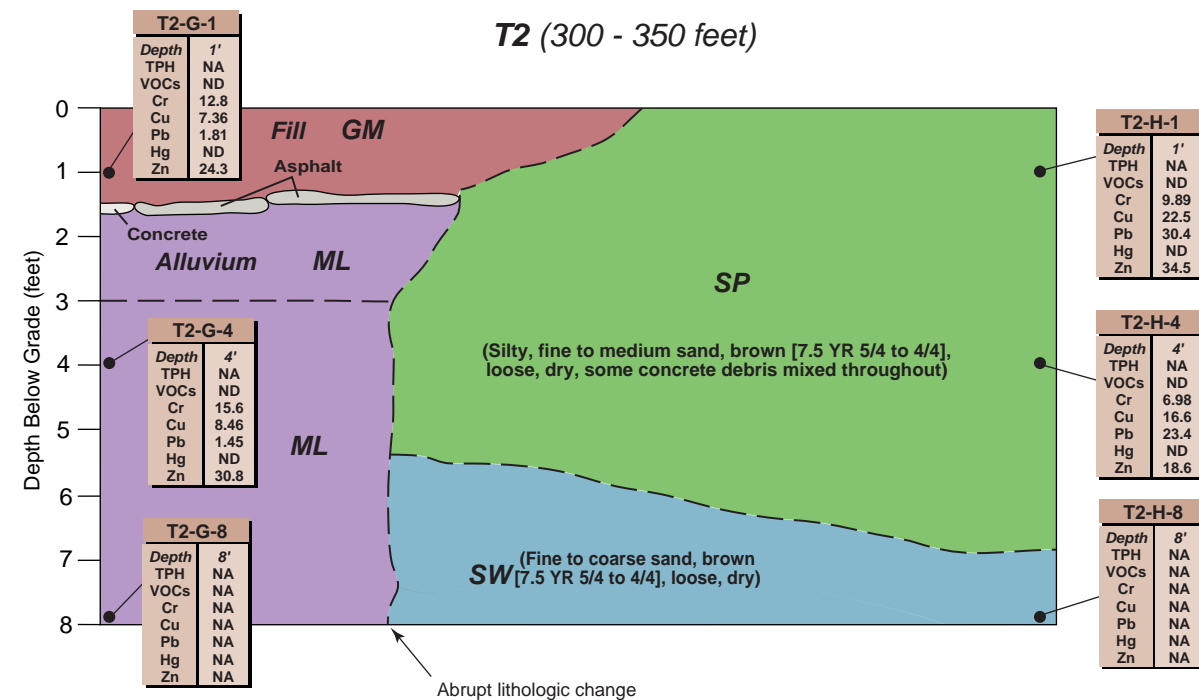
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TRENCH T2
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 11

Date Drafted:
10/19/06



EXPLANATION

Depth	4'
TPH	NA
VOCs	ND
Cr	15.6
Cu	8.46
Pb	1.45
Hg	ND
Zn	30.8

Soil samples collected by SCS on August 12, 13, 16, and 17, 2004. Depth given in feet below grade. Samples analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), and zinc (Zn). Results reported in milligrams per kilogram (mg/kg). VOC results reported in micrograms per kilogram (µg/kg). ND indicates concentration was not above the laboratory detection limit. NA indicates not analyzed.

- SW = well graded sands
- ML = silts/fine sandy silts
- SP = poorly graded sands
- GM = gravel/silt/sand mixture
- CL = silty clay

0 5 10 15
Approximate Horizontal Graphic Scale in Feet

0 1.5 3 4.5
Approximate Vertical Graphic Scale in Feet

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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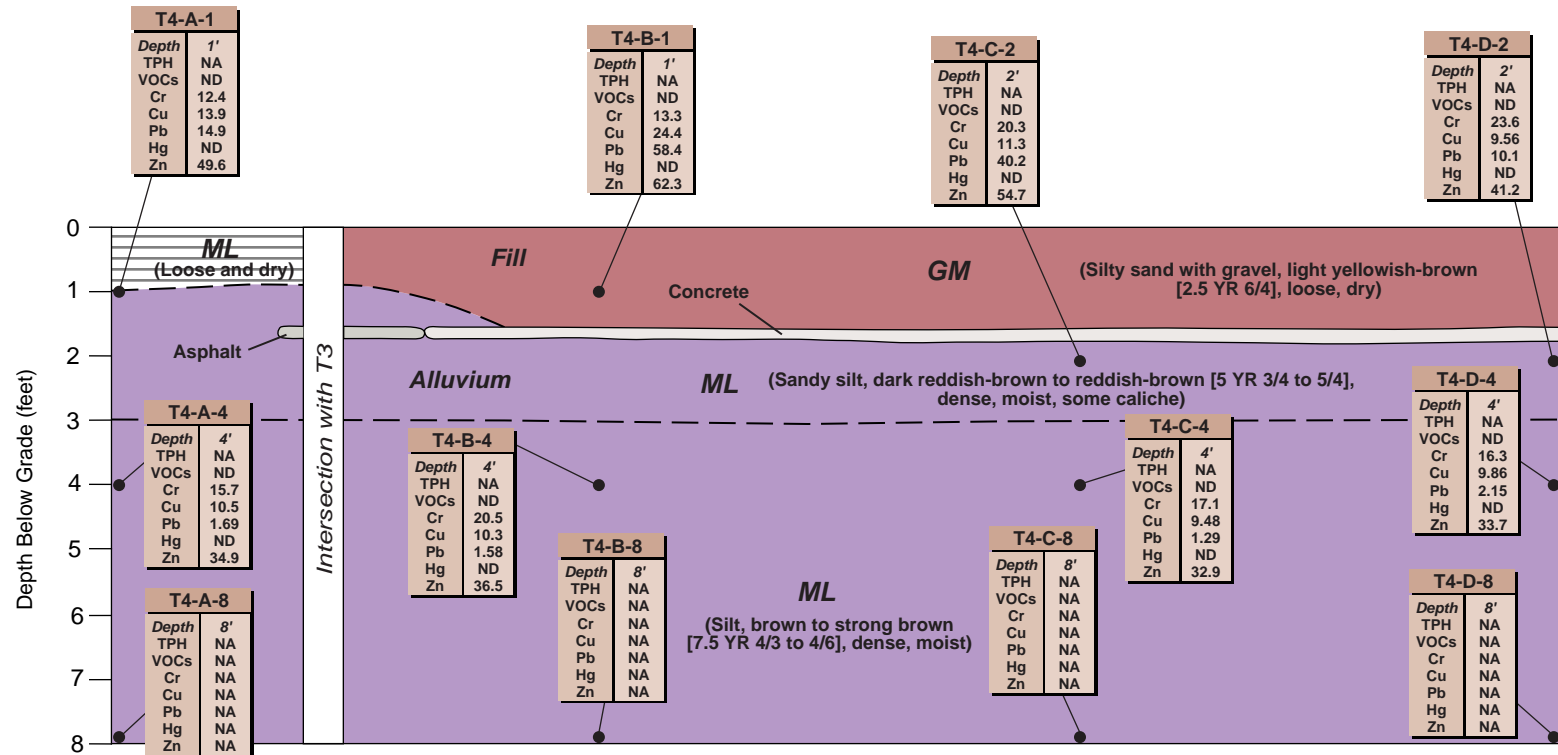
TRENCHES T2 and T3
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 12

Date Drafted:
10/19/06

T4 (0 - 75 feet)



EXPLANATION

Depth	4'
TPH	NA
VOCs	ND
Cr	15.6
Cu	8.46
Pb	1.45
Hg	ND
Zn	30.8

Soil samples collected by SCS on August 12, 13, 16, and 17, 2004. Depth given in feet below grade. Samples analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), and zinc (Zn). Results reported in milligrams per kilogram (mg/kg). VOC results reported in micrograms per kilogram (µg/kg). ND indicates concentration was not above the laboratory detection limit. NA indicates not analyzed.

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

- ML = silts/fine sandy silts
- GM = gravel/silt/sand mixture

0 5 10 15
Approximate Horizontal Graphic Scale in Feet

0 1.5 3 4.5
Approximate Vertical Graphic Scale in Feet

SCS ENGINEERS

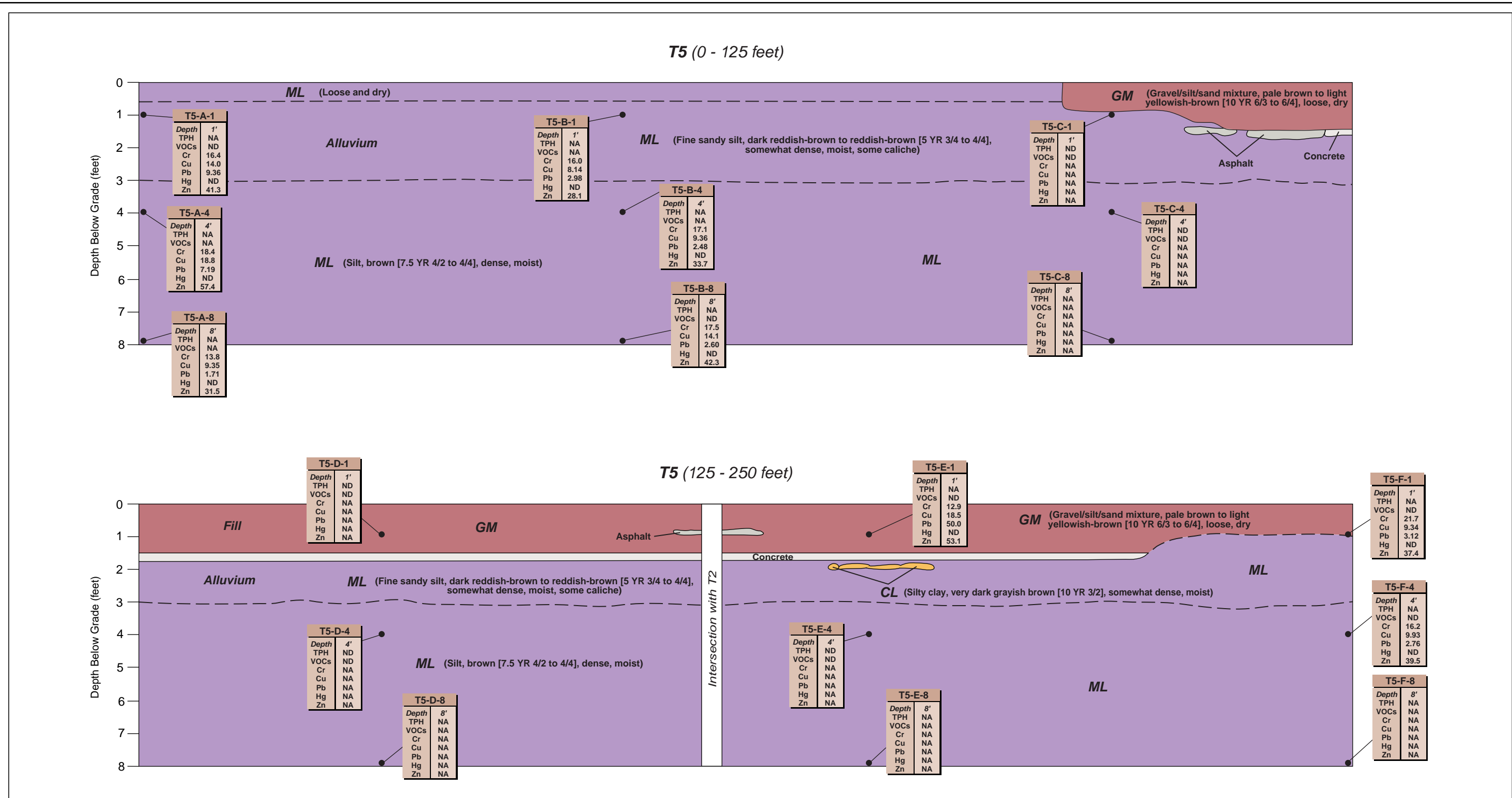
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TRENCH T4
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 13

Date Drafted:
10/19/06



EXPLANATION

T5-D-4	Soil samples collected by SCS on August 12, 13, 16, and 17, 2004. Depth given in feet below grade. Samples analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), and zinc (Zn). Results reported in milligrams per kilogram (mg/kg). VOC results reported in micrograms per kilogram (µg/kg). ND indicates concentration was not above the laboratory detection limit. NA indicates not analyzed.
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<table><tr><td>Depth</td><td>4'</td></tr><tr><td>TPH</td><td>ND</td></tr><tr><td>VOCs</td><td>ND</td></tr><tr><td>Cr</td><td>NA</td></tr><tr><td>Cu</td><td>NA</td></tr><tr><td>Pb</td><td>NA</td></tr><tr><td>Hg</td><td>NA</td></tr><tr><td>Zn</td><td>NA</td></tr></table>	Depth	4'	TPH	ND	VOCs	ND	Cr	NA	Cu	NA	Pb	NA	Hg	NA	Zn	NA	ML = silts/fine sandy silts
Depth	4'																
TPH	ND																
VOCs	ND																
Cr	NA																
Cu	NA																
Pb	NA																
Hg	NA																
Zn	NA																
	GM = gravel/silt/sand mixture																
	CL = silty clay																

0 5 10 15

Approximate Horizontal Graphic Scale in Feet

0 1.5 3 4.5

Approximate Vertical Graphic Scale in Feet

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San Diego, California 92123

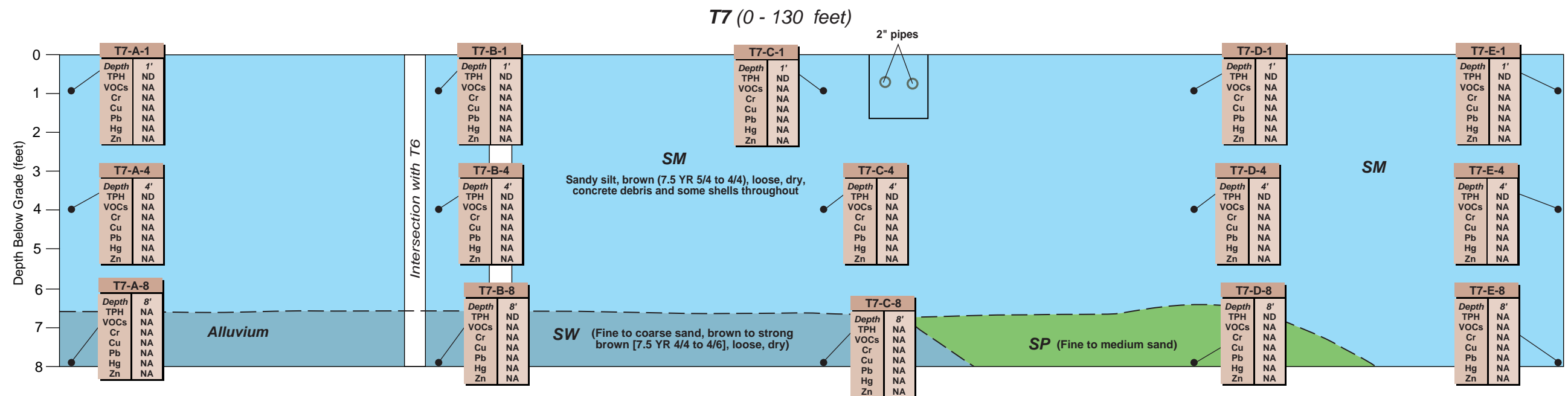
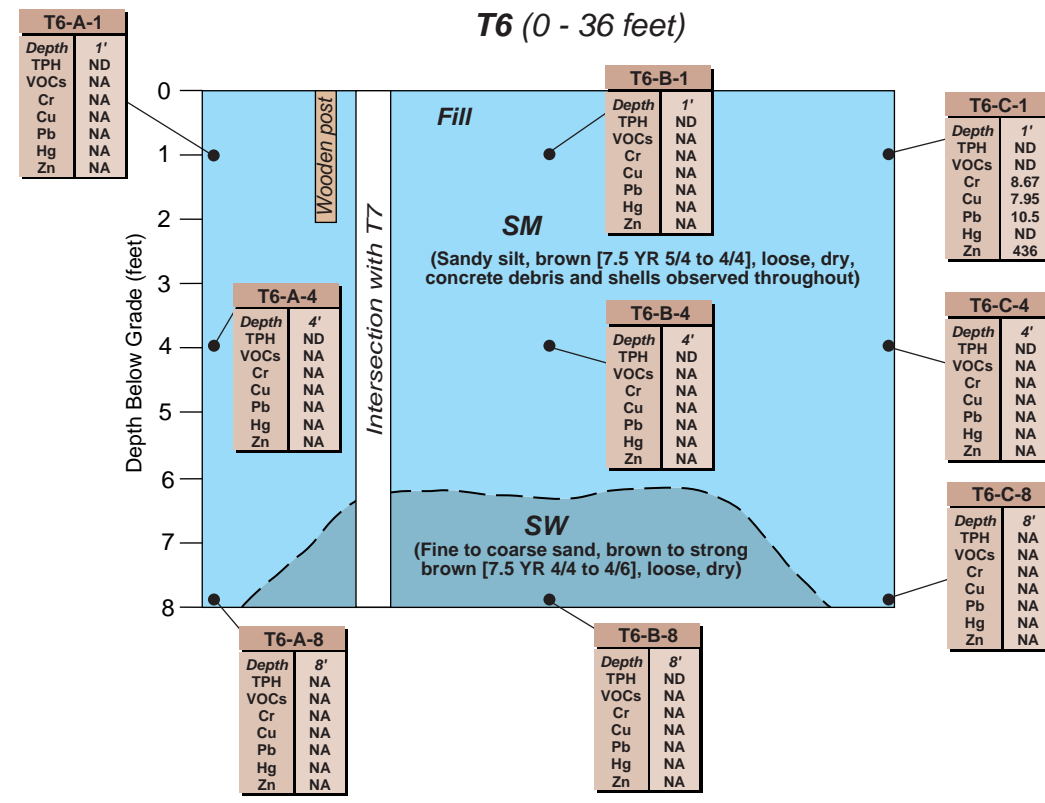
TRENCH T5
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 14

Date Drafted:
10/19/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.



EXPLANATION

T7-A-8

Depth	8'
TPH	NA
VOCs	NA
Cr	NA
Cu	NA
Pb	NA
Hg	NA
Zn	NA

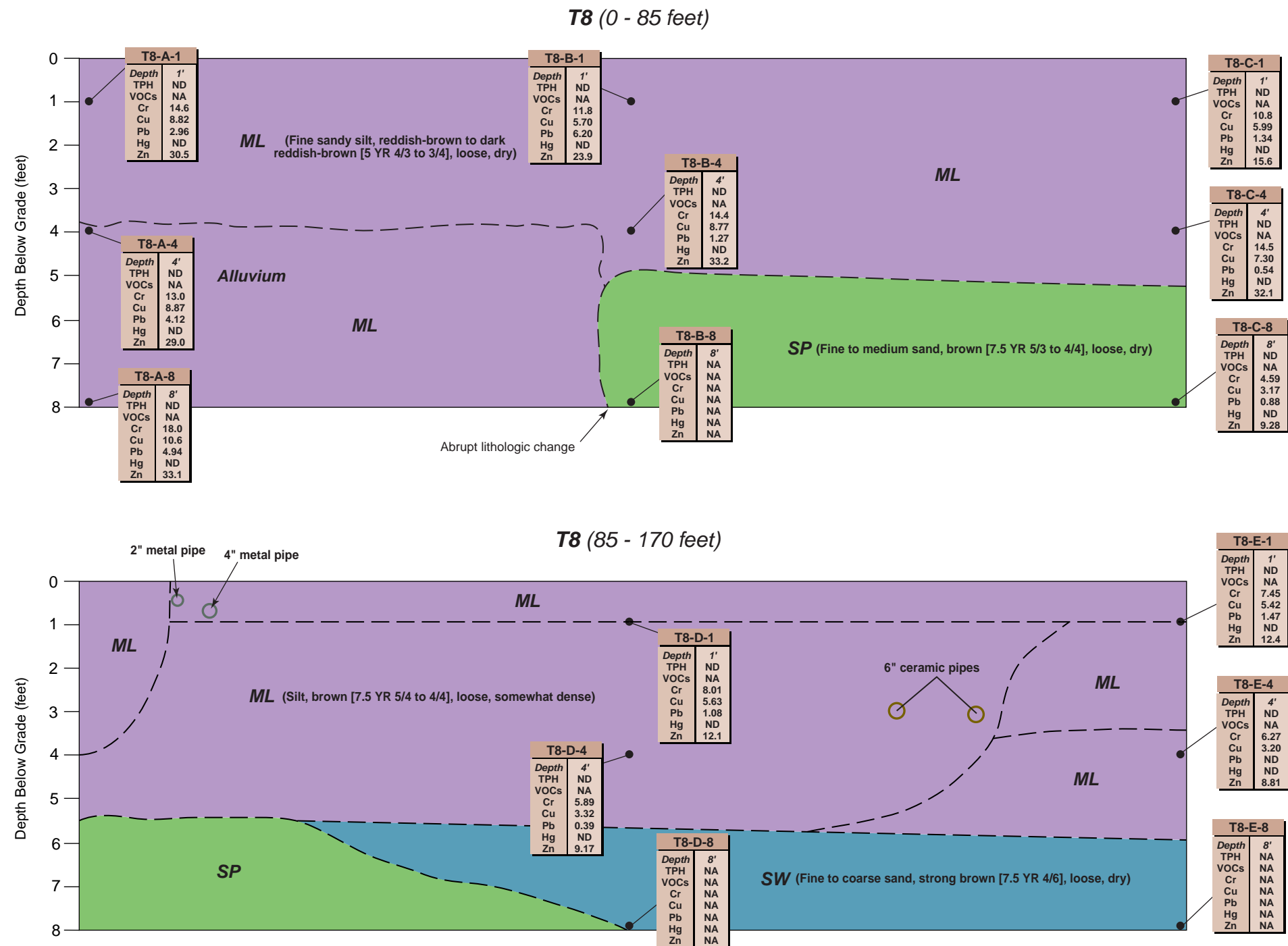
Soil samples collected by SCS on August 12, 13, 16, and 17, 2004. Depth given in feet below grade. Samples analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), and zinc (Zn). Results reported in milligrams per kilogram (mg/kg). VOC results reported in micrograms per kilogram (µg/kg). ND indicates concentration was not above the laboratory detection limit. NA indicates not analyzed.

- SM = sandy silts/silty sands
- SP = poorly graded sands
- SW = well graded sands



SCS ENGINEERS Environmental Consultants 8799 Balboa Avenue, Suite 290 San Diego, California 92123	TRENCHES T6 abd T7 Community Development Commission of National City Marina Gateway Hotel Project Formerly Cleveland and Cuyamaca Properties 2501 and 2510 Cleveland Avenue National City, California	Project No.: 01203569.11
		Figure 15
		Date Drafted: 10/19/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.



EXPLANATION

T8-D-4	
Depth	4'
TPH	ND
VOCs	NA
Cr	5.89
Cu	3.32
Pb	0.39
Hg	ND
Zn	9.17

Soil samples collected by SCS on August 12, 13, 16, and 17, 2004. Depth given in feet below grade. Samples analyzed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), and zinc (Zn). Results reported in milligrams per kilogram (mg/kg). VOC results reported in micrograms per kilogram (µg/kg). ND indicates concentration was not above the laboratory detection limit. NA indicates not analyzed.

 ML = silts/fine sandy silts
 SW = well graded sands
 SP = poorly graded sands

0 5 10 15
Approximate Horizontal Graphic Scale in Feet

0 1.5 3 4.5
Approximate Vertical Graphic Scale in Feet

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

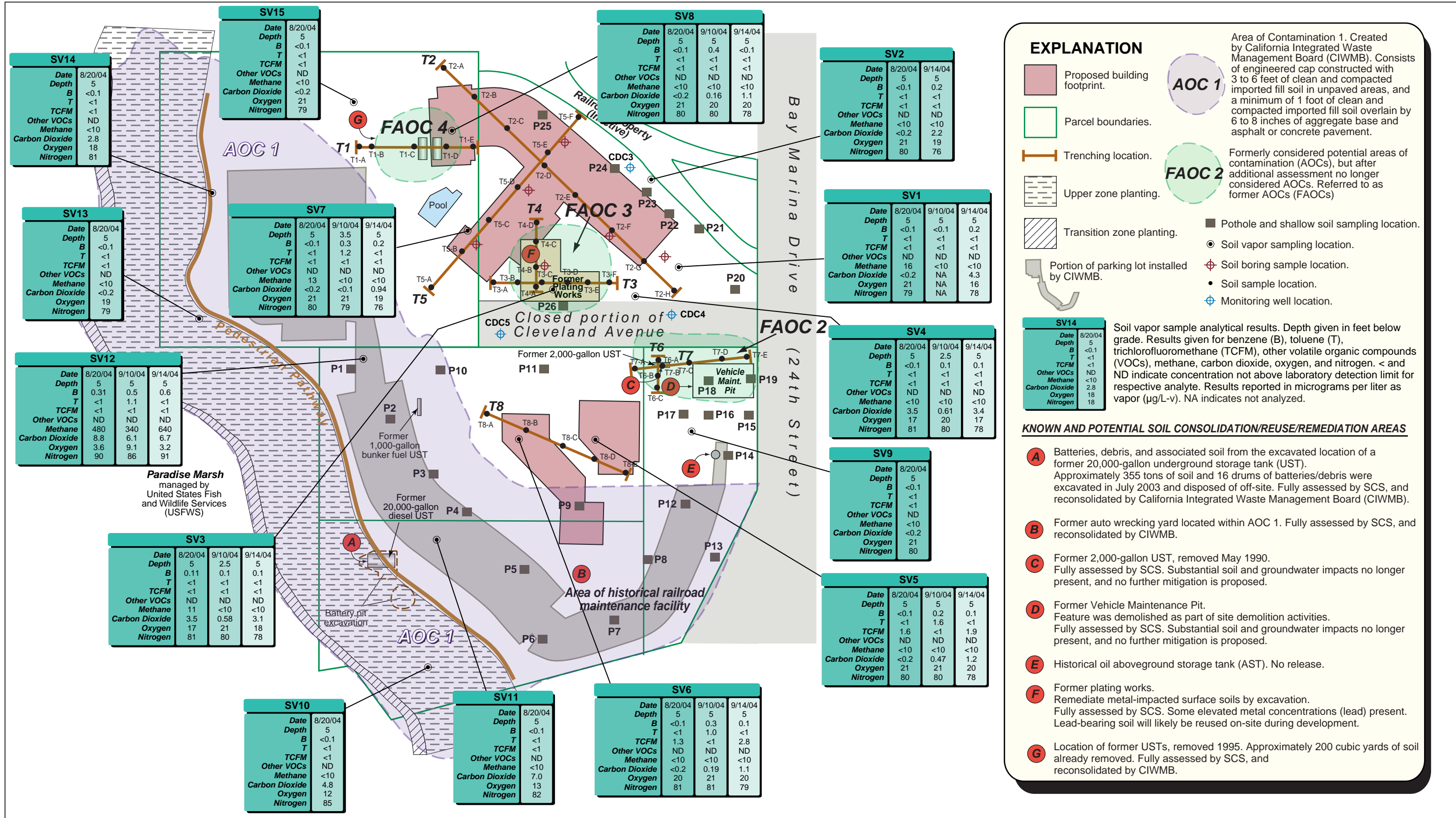
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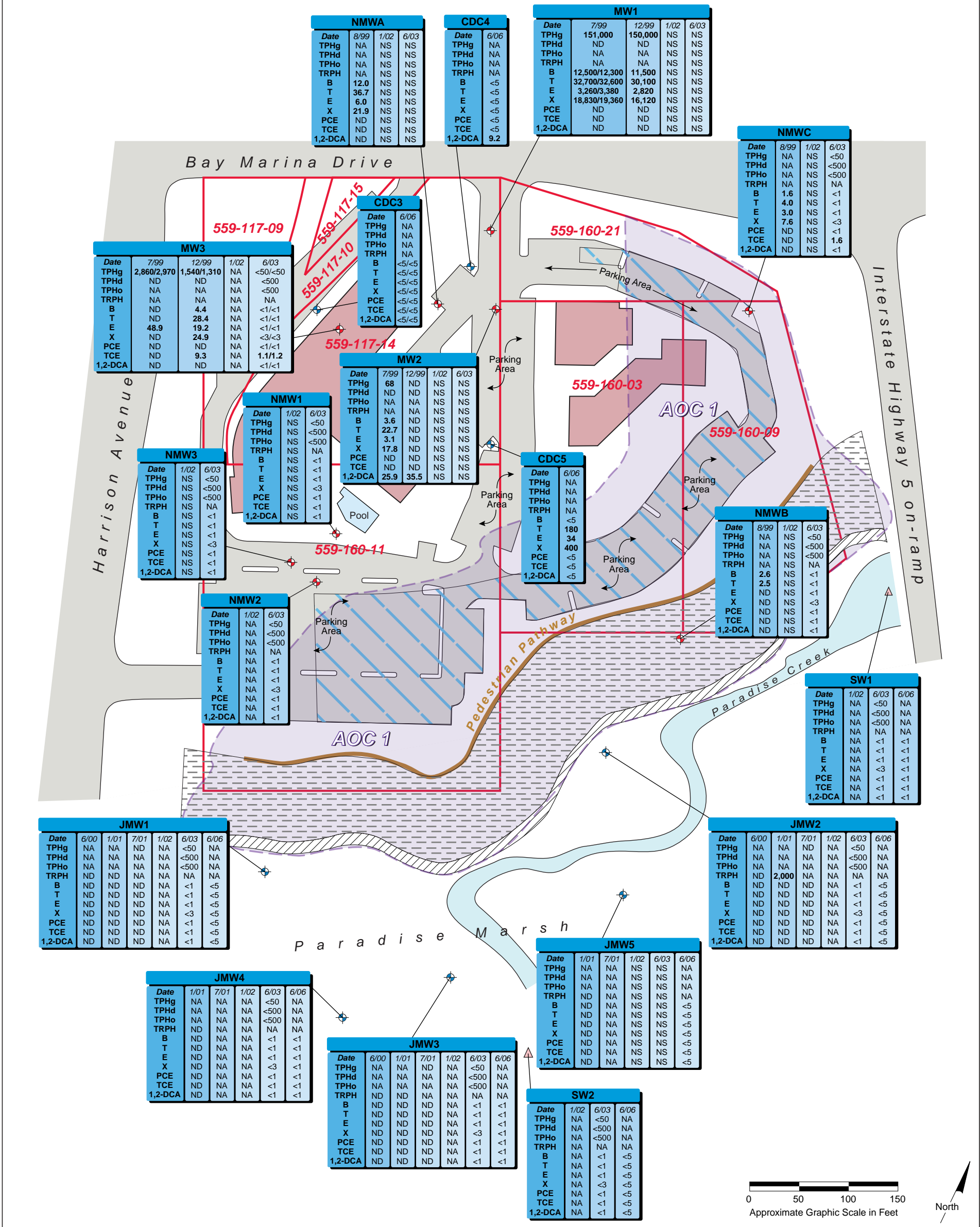
TRENCH T8
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 16

Date Drafted:
10/19/06





EXPLANATION

- Monitoring well location.
- Approximate parcel boundaries.
- Proposed buildings.
- Former monitoring well location.
- AOC 1 Area of Contamination.
- Portion of parking lot installed by CIWMB.
- Upper zone planting.
- Transition zone planting.

JMW4				
Date	1/01	7/01	1/02	6/03
TPHg	NA	NA	NA	<50
TPHd	NA	NA	NA	<500
TPHo	NA	NA	NA	<500
TRPH	ND	NA	NA	NA
B	ND	NA	NA	<1
T	ND	NA	NA	<1
E	ND	NA	NA	<1
X	ND	NA	NA	<3
PCE	ND	NA	NA	<1
TCE	ND	NA	NA	<1
1,2-DCA	ND	NA	NA	<1

Groundwater and surface water samples analyzed for total petroleum hydrocarbons as gasoline- (TPHg), as diesel- (TPHd), and as oil-range hydrocarbons (TPHo) in general accordance with modified EPA Method 8015; volatile organic compounds (VOCs) (including benzene, toluene, ethylbenzene, and total xylenes [BTEX], tetrachloroethene [PCE], trichloroethene [TCE], and 1,2-dichloroethane [1,2-DCA]) in general accordance with EPA Method 8260B; polynuclear aromatic hydrocarbons (PAHs) in general accordance with EPA Method 8310. Results reported in micrograms per liter (µg/L). < indicates the reported concentration was not above the laboratory detection limit. NA indicates not analyzed. NS indicates not sampled.

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

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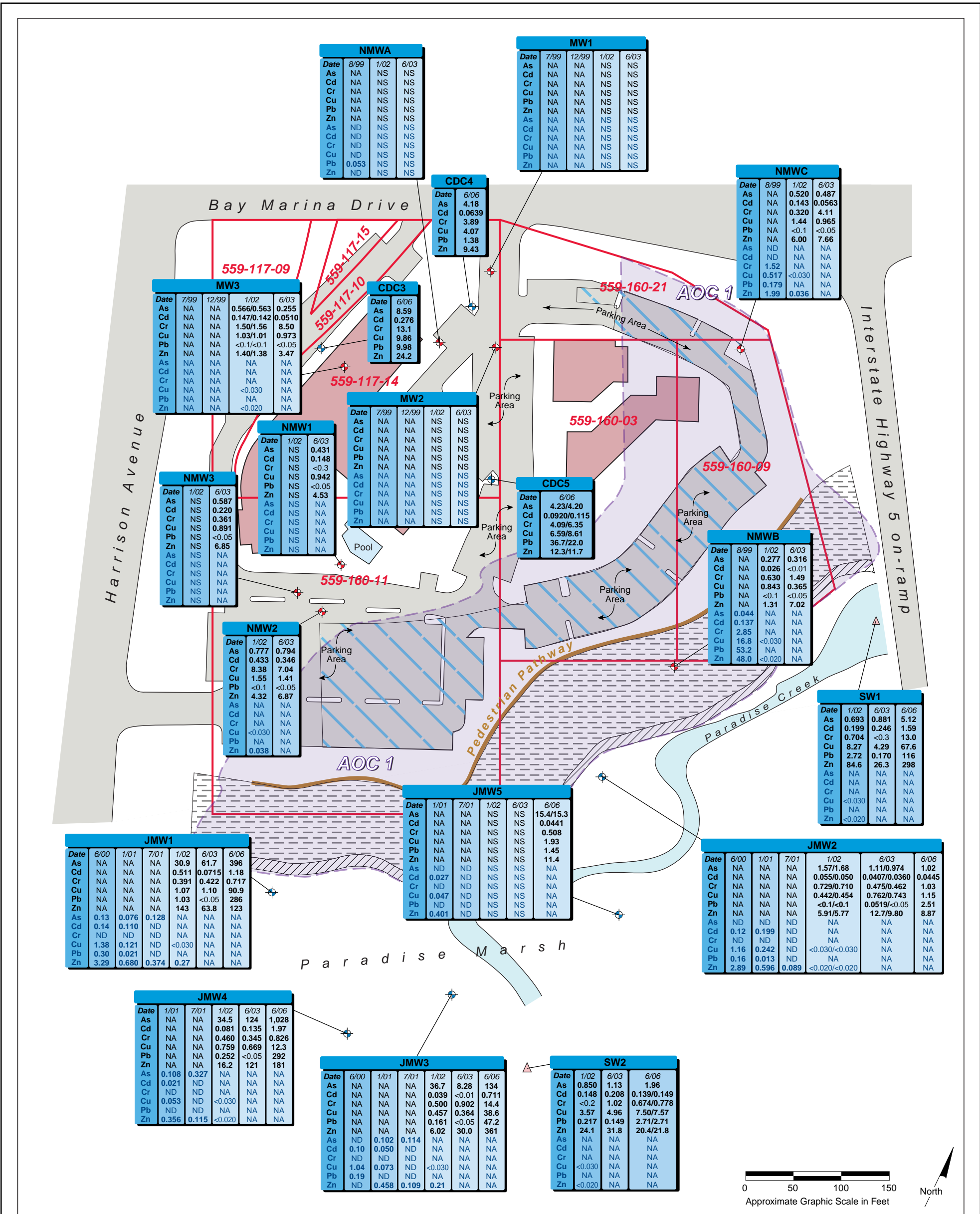
GROUNDWATER ANALYTICAL DATA FOR ORGANIC CONSTITUENTS

Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 18

Date Drafted:
10/19/06



EXPLANATION

- Monitoring well location.
- Approximate parcel boundaries.
- Proposed buildings.
- Former monitoring well location.

- AOC 1 Area of contamination.
- Portion of parking lot installed by CIWMB.
- Upper zone planting.
- Transition zone planting.

Date	1/01	7/01	1/02	6/03
As	NA	NA	34.5	NA
Cd	NA	NA	0.081	NA
Cr	NA	NA	0.460	NA
Cu	NA	NA	0.759	NA
Pb	NA	NA	0.252	NA
Zn	NA	NA	16.2	NA
As	0.108	0.327	NA	NA
Cd	0.021	ND	NA	NA
Cr	ND	ND	NA	NA
Cu	0.053	ND	<0.030	NA
Pb	ND	ND	NA	NA
Zn	0.356	0.115	<0.020	NA

Black print indicates groundwater and surface water samples collected by SCS Engineers in general accordance with EPA Method 1669 and analyzed for metals in general accordance with EPA Method 1640. Results reported in micrograms per liter (µg/L). Blue print indicates groundwater samples analyzed for metals in general accordance with EPA Method 6010B/7470A. Results reported in milligrams per liter (mg/L). NA indicates not analyzed. ND indicates not detected above laboratory detection limit. NS indicates not sampled. < indicates the reported concentration was not above laboratory detection limits.

As = arsenic
Cd = cadmium
Cr = chromium
Cu = copper
Pb = lead
Hg = mercury
Zn = zinc

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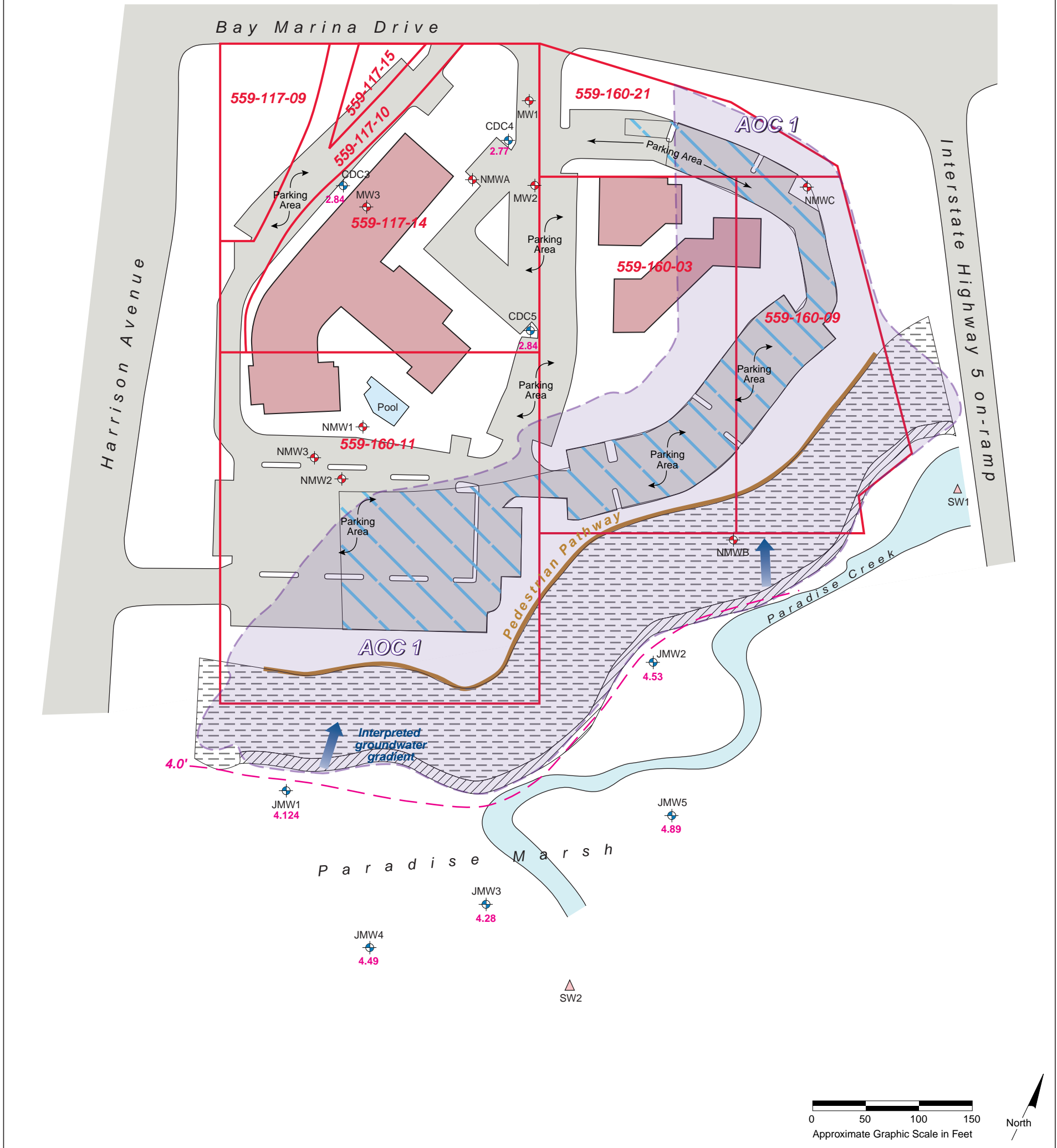
GROUNDWATER ANALYTICAL DATA FOR
INORGANIC CONSTITUENTS
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 19

Date Drafted:
10/19/06

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.



EXPLANATION

- Monitoring well location.
- Approximate parcel boundaries.
- Proposed buildings.
- Former monitoring well location.
- Well designation and groundwater elevation as measured on 6/27/06.
- Area of contamination 1.
- Portion of parking lot installed by CIWMB.
- Upper zone planting.
- Transition zone planting.
- Contour of interpreted groundwater elevation.

SCS ENGINEERS

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INTERPRETED HYDRAULIC GRADIENT
Community Development Commission of National City
Marina Gateway Hotel Project
Formerly Cleveland and Cuyamaca Properties
2501 and 2510 Cleveland Avenue
National City, California

Project No.:
01203569.11

Figure 20

Date Drafted:
10/19/06

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